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THE EVOLUTION OF THE CENTRAL AREA OF

EDMONTON, ALBERTA,

1946-1966

by

MICHAEL JOSEPH BANNON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

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OF MASTER OF ARTS

DEPARTMENT OF GEOGRAPHY

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UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled The Evolution of the Central Area of Edmonton, Alberta, 1946 - 1966, submitted by Michael Joseph Bannon in partial fulfilment of the requirements for the degree of Master of Arts.





## ABSTRACT

The study of the evolution of entire central areas of cities has received little attention up to the present. The central area is, in general terms, composed of all those commercial and other activities located within the inner limits of homogenous residential or manufacturing districts. Part of this area, the central business district, is characterized by the highest land values and the greatest concentration of office, retail and service industrial uses in the entire city. It is the focus of both pedestrian and automobile traffic and has been the subject of much research. The remainder of the central area, the frame, which usually surrounds the central business district is characterized by a wide variety of uses and development tends to be extensive rather than intensive. These uses are usually segregated into distinct functional nodes. This part of the central area has received little attention in research to date.

Almost since Edmonton's beginning the central area has been moving westward, and this expansion has been particularly rapid since World War II. The floor space devoted to most commercial functions has been expanding at the expense of residential and other non-central area functions. Between 1946 and 1966 floor space in the central area increased by 45.5 per cent mostly in response to growth



of office, service industrial and public uses.

In the central area this expansion of functions occurred both upwards and outwards in response to the construction of multistorey buildings over a wide area. The increased demand for, and cost of, land in the central business district forced most non-central business district functions out of the area. As a result non central area uses have almost ceased to exist in the central business district and most of those uses, characteristic of the frame, have been forced to relocate within the present confines of the frame. Consequently the functional segregation of the frame and the central business district has been established. Today the central business district is characterized by a variety of retail, office and service industrial uses requiring close proximity to one another and serving the entire metropolitan area. The frame on the other hand is now occupied by nodes of wholesale, manufacturing, public, office and retail uses which often cannot afford and do not need a central business district location, but to which easy access to the central business district and the rest of the city is a distinct advantage.

These differences are reflected in the physical appearance of both parts of the central area. Much of the central business district is occupied by multistorey buildings and little of its floor space is unused. In the frame buildings are low "walk-up" structures covering large areas. Here, too, large amounts of space are left unused, or used as storage facilities paying a minimum rental.





## ACKNOWLEDGEMENTS

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## INTRODUCTION

Cities throughout the world are in a continuing state of change. While parts of some cities suffer decay, most are expanding and developing. In no city are the forces of change inactive. Colby says:

The modern city is a dynamic organism constantly in process of evolution . This evolution involves both the modification of long established functions and the addition of new functions. Such fundamental developments call for new functional forms, for modification of forms previously established, and for the extension of, and realignment of, the urban pattern.<sup>1</sup>

This continuing process of change in all cities of the world can result from a variety of forces. Some, such as improved technology can be independent of the urban system, while growth of the system itself forces continuous adjustment and thereby facilitates the incorporation of changes which are independent of growth. Or these changes can be brought about by alteration of the scale, mode and type of occupation or operation, such as new preferences in consumer behaviour, or the increasing importance of quaternary functions in the employment structure.<sup>2</sup> These forces have a

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<sup>1</sup> C. Colby, "Centrifugal and Centripetal Forces in Urban Geography", Annals, Association of American Geographers, Vol. 23, 1933, page 1.

<sup>2</sup> " "quaternary activities" really include the management of private and public affairs, banking and insurance, qualified professional service, research, education, the press and other mass media, the world of art, higher technology, and politics". J. Gottman, "Emerging Problems of Growth and Development", in Proceedings of the International Conference on Regional Development and Economic Change, Toronto, 1965, page 191. Quaternary services are distinguished from tertiary services since no physical good is involved in the transaction.





direct effect on the development of the whole urban area and especially on the form and functions of the central part of the city.

## GENERAL THEORY OF URBAN ORGANIZATION

During the 19th century urban scholars had recognized the existence of functional segregation within the city and in 1903, Hurd, in Principles of City Land Values, set out to demonstrate the logic behind the functional subdivision of the city.<sup>3</sup> He developed the idea of rent as a function of convenience, or economy in time or effort. The most accessible points within the city were, he felt, most in economic demand and so could command the highest rentals. Only establishments with a vital dependence on accessibility would be willing to pay the necessary rents. Other establishments for which accessibility was of less importance sought areas of less centrality and lower rents. Consequently, a segregation of land uses took place. Subsequent technological changes have modified the types of uses commanding central locations, but the basic principle has remained.

Many later studies have reiterated this basic principle and refined its application. Haig further explained

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<sup>3</sup> R. Hurd, Principles of City Land Values, New York: The Record and Guide, 1903.



the composition of the metropolis when he spoke of it as being composed on a number of businesses, each of which contains many functions.<sup>4</sup> Some of these functions can be physically separated from each other and located at different points within the metropolis. This results in a number of specialized centres containing certain functions rather than one diversified centre comprising all the functions. Only those functions which depend on comparative shopping or face-to-face contacts, and which benefit from close association with other firms, need be located in the heart of the metropolis. An outlying location is preferable for many other functions, ranging from sales of convenience goods to heavy industry.

Ratcliff carried this argument a step further when he said "the structure of the city is determined by the dollar evaluation of the importance of convenience".<sup>5</sup> Each activity seeks to minimize the disadvantages and costs of friction by locating where its transportation costs are at a minimum. Here it will pay site rent which, added to transportation costs, is just less than the total of transportation and site rents for alternative locations. In this fashion, assuming perfect competition, each site becomes

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<sup>4</sup> R. Haig, Major Economic Factors in Metropolitan Growth and Arrangement, Part I, Regional Survey for New York and Its Environs, New York, 1927.

<sup>5</sup> R. Ratcliff, Urban Land Economics, New York, McGraw-Hill Book Co., 1949, page 375.





occupied by that activity which can use it most successfully.

As early as 1933 Hoyt demonstrated the importance of accessibility in the Loop of Chicago, where firms were willing to pay very high rentals.<sup>6</sup> This part of Chicago maintained the highest land values for over a hundred years.

The fact that the central business district of Chicago has not moved out of the square mile of land surrounding State and Madison Streets in a century, and after 1882 almost ceased to spread has caused the intense utilization and tremendous increase of land values in that area.<sup>7</sup>

Instead of movement of the C.B.D. of Chicago there had been a succession of functions and forms on the site, all availing themselves of its prime accessibility.

In The Core of the City, Rannels, while recognizing the importance of location, stressed the importance of relationships among the various establishments which use these sites.<sup>8</sup> He sees the city as composed of organized activities which are continually adjusting themselves in space, as the relationships among separate activities gain or lose in strength, and as establishments are formed or dissolved. Changes in land use result from any changes in the relationships, but these land use changes are constrained by development which has taken place before-hand and by functions

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<sup>6</sup> H. Hoyt, One Hundred Years of Land Values In Chicago, Chicago, University of Chicago Press, 1933.

<sup>7</sup> Ibid., page 336.

<sup>8</sup> J. Rannels, The Core of the City, New York, Columbia University Press, 1956.



already anchored in that area. As a result, changes for any one period take shape as modifications of the existing land use pattern, rather than as a completely new pattern.

These studies have been followed by an increasing volume of literature dealing with functional changes within the city, particularly with respect to patterns of retailing.<sup>9</sup> These have led to a greater understanding of the working of the urban complex, and provide evidence of the continuing segregation of urban activities. These studies show that regional shopping centres have increased in both number and size in many cities of North America, and have reduced the importance of the city centre as a retail sales area. In particular, these studies show the almost complete shift of consumer goods sales from the city centre to the outlying shopping centres. The net result has been a percentage decline in the importance of city centre retailing while its absolute volume has changed only little since 1950.

As a result of this the central area has become

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<sup>9</sup> J. Simmons, The Changing Pattern of Retail Location, Department of Geography, Research Paper No. 92, University of Chicago, 1964.

B. J. Berry, Commercial Structure and Commercial Blight, Department of Geography, Research Paper No. 85, University of Chicago, 1963.

S. B. Cohen and G. K. Lewis, "Form and Function in the Geography of Retailing", Ec. Geog., Vol. 43, No. 1, pages 1 - 42.

D. B. Johnson, A Functional Comparison of the Central Retail District With Two Regional Shopping Centres in Calgary, Alberta, Unpublished M.A. Thesis, Department of Geography, University of Alberta, Calgary, 1963.





the location for many functions which have one common quality. All the functions properly located here are functions whose dominant locational requirement is that they must be part of a great cluster of economic activity. This requirement stems from the need to communicate face - to-face with persons outside the firm. In order to achieve this clustering and these contacts, firms are willing to pay the very high rentals demanded in the central area of the city.

#### THE CITY CENTRE

The studies outlined above go a long way to explain the dominance and the continuing importance of the central areas of cities. In recent years much interest has been focused on city centres because threats of decentralization, immigration of low income populations, and the congestion and over-subdivision of land have aroused grave concern. Throughout North America this is the part of the city where change is most in evidence. It is easily identifiable as the place with the greatest concentration of tallest buildings, the highest flow of pedestrian traffic and the hub of the mass transit media. It is that part of the city with vast investment in new construction while still having some of the most historic buildings of the whole urban area.

The central area of the city is the nucleus from which the city and its functions have grown. It is the ecological centre whose spatial position in relation to the





whole city allows a complex of economic and other institutions to operate at optimal efficiency. In the case of Edmonton, as we can see on Map 1 following page xxi, it is also the geographic centre of the city.

But most of all the area bears continually the confusion of change and beginning anew. The diversity of the city centre comes in part from its status as the one area in the city that has traditionally been the subject of rebuilding.

The value of central space and the changing function of the core in an expanding metropolis have led to constant renewal and re-design of buildings, and even of large units within the core.<sup>10</sup>

The constant replacement of buildings and functions at the centre has created a stylistic, cultural and architectural grouping that is not to be found in any other part of the city.

Although the heart of the urban complex has long occupied large sections of general studies on urban problems, it was only in 1941 that the first major analysis of a city centre was completed by Johnson.<sup>11</sup> In the Natural History of the Central Business District With Particular Reference to Chicago he traced the historical development of central Chicago's land use patterns. He saw changes in

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<sup>10</sup> J. Vance, Jr., "Focus On Downtown", Community Planning Review, Vol. 16, No. 2, 1966, page 10.

<sup>11</sup> E. Johnson, The Natural History of the Central Business District With Particular Reference to Chicago, Unpublished Ph.D. Thesis, Department of Sociology, University of Chicago, 1941.



land use patterns as the result of changes in the economy of the settlement, and he set out to examine the land use pattern of this part of Chicago as determined by village, town and metropolitan economies. He found that those functions that remained in the C.B.D. (defined in Chapter I) at any one time were those functions which could show a profit after paying rent and so afford their good location.

By the use of street directories Ratcliff did a similar reconstruction of the central area of Madison between 1921 and 1950.<sup>12</sup> He analyzed the effect of decentralization on retailing in the city centre. He found that centrality of the central area more than offset any danger of its retail function being completely dispersed by the rise of suburban shopping centres.

In 1962 Saarinen compared present and past land uses within the C.B.D. of Calgary, Alberta, "to determine which functions are leaving the C.B.D., which are firmly entrenched as ever, and whether any trends towards functional separation are evident".<sup>13</sup> The results of this study demonstrated the physical expansion of the C.B.D. and of office functions especially. He found evidence that many types of retail trading were moving to outlying centres and that the office functions were increasingly becoming the mainstay

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<sup>12</sup> R. Ratcliff, "The Madison Central Business Area", Wisconsin Commerce Papers, Vol. 1, No. 5, 1953.

<sup>13</sup> T. Saarinen, The Changing Office Functions in Calgary's Central Business District 1946-1962, Unpublished M.A. Thesis, Department of Geography, University of Chicago, 1963, page 17.





of the C.B.D.

It is the purpose of this study to analyze the developments within the central area of Edmonton during a period of rapid growth. The evolution of all functions will be studied for the period 1946 to 1966 inclusive. The changing patterns of land uses will be studied to determine the changing importance of functions within the area. The interaction of functions upon one another, as seen through land use maps, will also be concentrated upon. In this way it is hoped to give an orderly picture and analysis of the recent historical development of the central area of Edmonton.

#### SITE OF THE STUDY

Findings in this study are drawn from a close examination of the central area of Edmonton, a metropolitan area with a population of 398,587 in 1964.<sup>14</sup> Edmonton, capital of the province of Alberta, has in eighty years grown from a frontier post and village to the first city of the province and one of the largest in Canada. The effects of this rapid transformation from village to metropolis have been most pronounced in the central area, where the settlement began.

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<sup>14</sup> Census of Canada 1966, Preliminary Report, Edmonton Journal, September 30, 1966.





Figure 1 shows how rapid the growth of the city has been and in particular the rapid expansion of population during the period under study. Table I compares this growth to the other cities and metropolitan areas of Western Canada. All of these urban areas have experienced rapid growth since 1946, but both Calgary and Edmonton have increased by well over 200 per cent in the period. Such a growth rate upon such a scale and for so long a period, is unprecedented in Canadian cities and has led to rapid alterations of the city centre.

The rapid growth of Edmonton in the last twenty years serves to illustrate more clearly the forces at work in most central areas and so provides an ideal situation for their examination.

#### SOURCES OF INFORMATION

By land use pattern is meant the spatial distribution and interaction of functions which use land. This demands a cultural and functional, as well as a physical, connotation of the phrase. "Land use pattern" as used in this study denotes an arrangement of land uses brought about by the social, economic, political and physical determinants at work in the city and its region. This is an orderly arrangement resulting from both past and present developments within the urban area, and is the product of the historical growth of the city.



TABLE I - POPULATION OF CITIES OR METROPOLITAN AREAS OF WESTERN CANADA

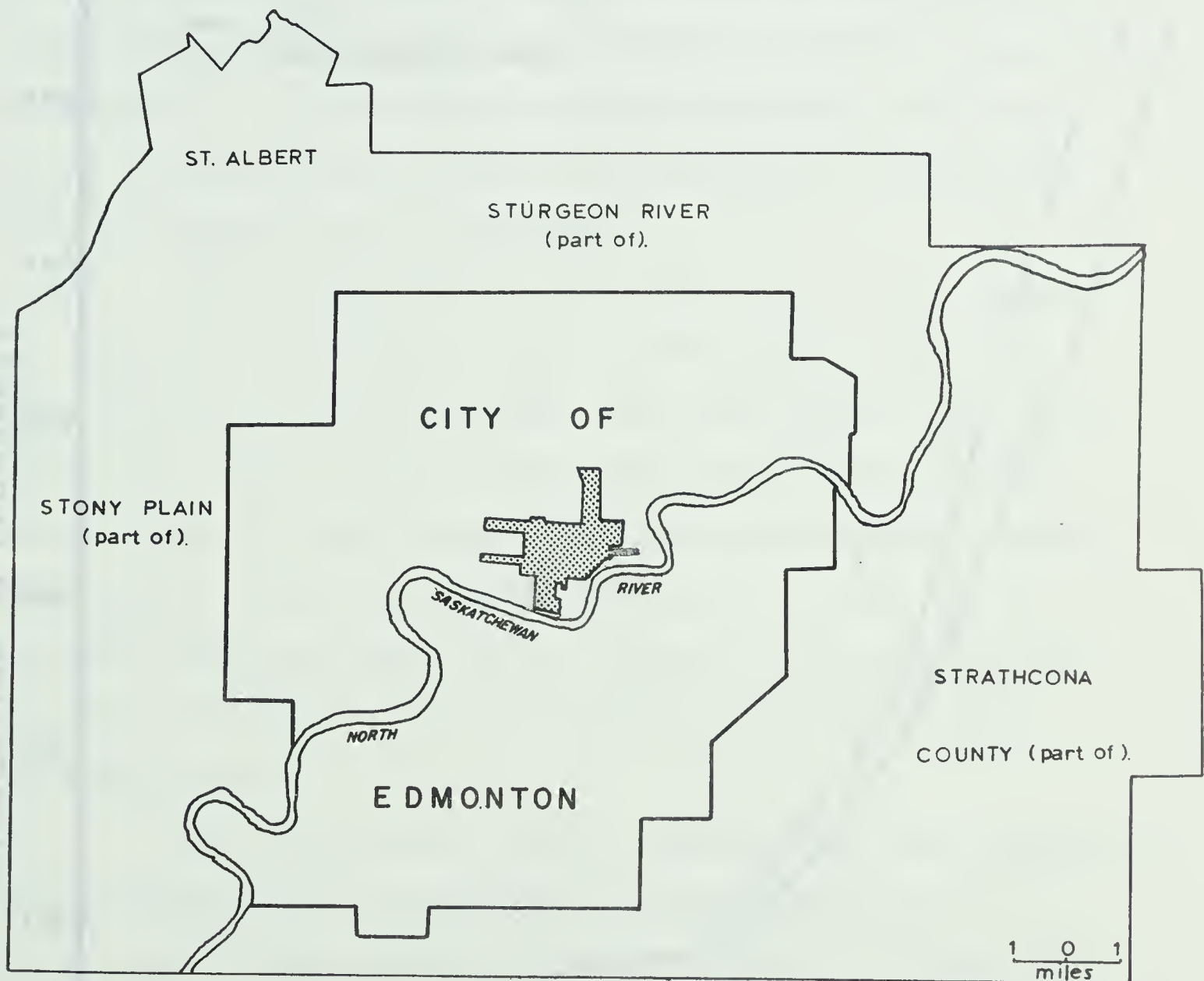
	1901 <sup>1</sup>	1921	1941	1946	1951	1956	1961	1966 <sup>2</sup>
Calgary	4,091	63,305	93,021	100,044	139,105	200,449	279,062	328,258
Edmonton	2,626	58,827	97,842	113,116	173,075	251,004	337,568	398,587
Regina	2,249	34,432	58,524	60,246	71,319	89,755	112,141	130,561
Saskatoon	113	25,739	43,027	46,028	53,268	72,858	95,526	115,247
Winnipeg	42,430	179,087	299,937	329,045	354,069	409,121	475,989	505,255
Vancouver	27,010	163,220	377,447	530,728	561,960	665,017	790,165	884,095

Source: 1. Census of Canada for 1901, 1921, 1941, 1946, 1951, 1956, and 1961.

2. Preliminary Report, Census of Canada, 1966, Quoted from the Edmonton Journal, September 30, 1966.



# EDMONTON METROPOLITAN AREA



SOURCE: CENSUS OF CANADA 1961.

■ CENTRAL AREA

MAP 1





# POPULATION OF EDMONTON CITY AND METROPOLITAN AREA

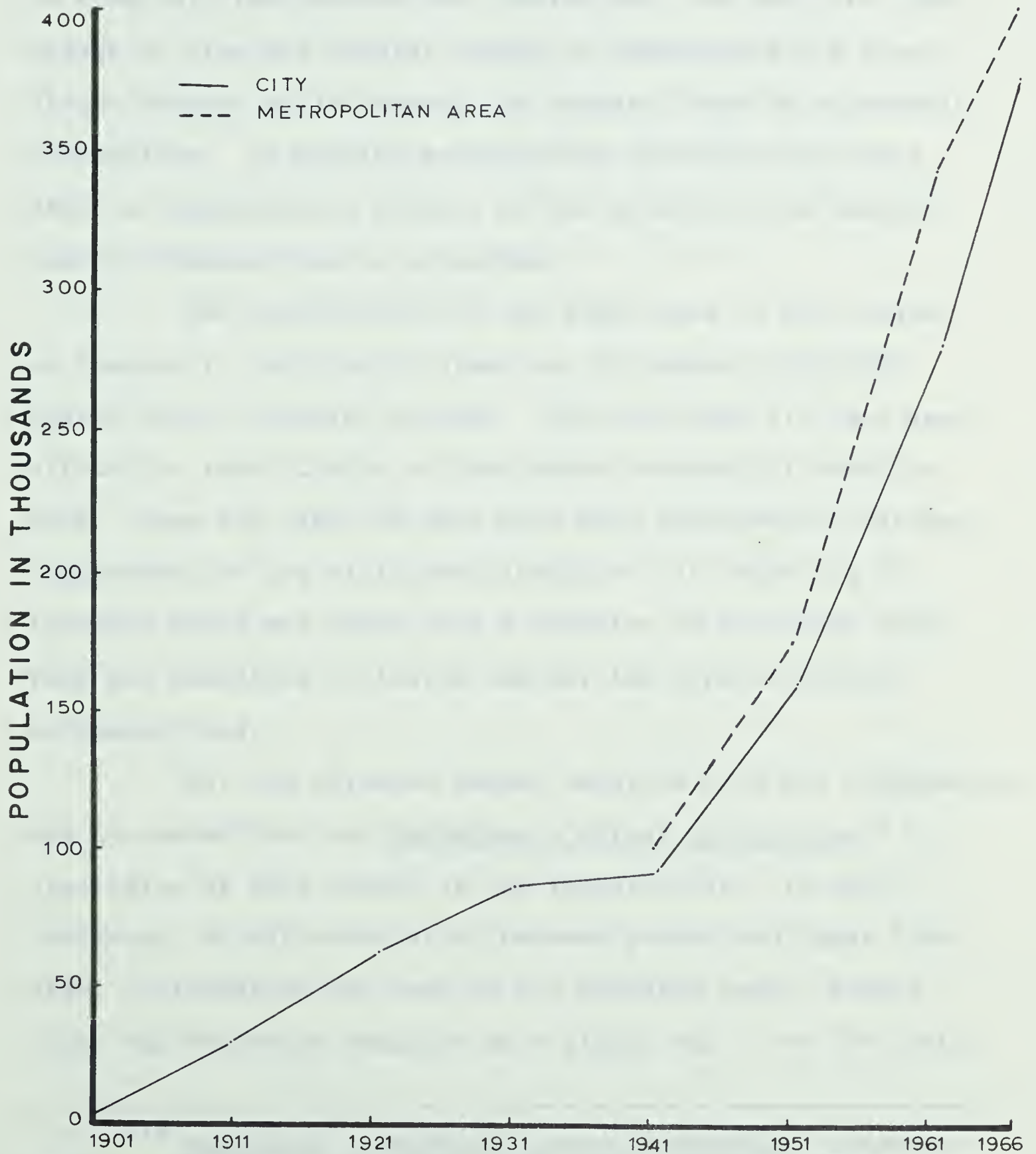


FIG. 1

SOURCE : CENSUS OF  
CANADA,





To facilitate the analysis of functional change, land use was mapped for the years 1946, 1950, 1955, 1960 and 1966. These dates were chosen since it was not possible to study all the year-to-year variations, but they are close enough in time and regular enough to demonstrate the significant changes while keeping the research down to manageable proportions. By mapping and analyzing land uses for these dates a comprehensive picture of the growth of the central area of Edmonton can be presented.

The delimitation of the study area is the subject of Chapter I. As finally drawn up, it covers 20,000,000 square feet, excluding streets. This includes all land uses within the inner limits of continuous residential development. Some old land use maps have been preserved by various departments of the civic administration but these are for isolated dates and cover only a fraction of the study area. They are therefore of little use for the type of project envisaged here.

For the selected dates, detailed land use information was extracted from the Henderson's Street Directories.<sup>15</sup> A limitation of this source is the impossibility, in many instances, of differentiating between ground and upper floor uses. Information for each of the selected dates, except 1966, was therefore compiled on a single map. For 1966 data,

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<sup>15</sup> Henderson's Edmonton Street Directories, Henderson and Co., Winnipeg, for 1946, 1950, 1955, 1960 and 1966.



a field survey was conducted and the results for ground, second and upper floors appear on Maps 8, 9 and 10.

From Fire Insurance Maps, on which are recorded the shape and position of all structures in the city, it was possible to calculate the area devoted to each use for a particular date and so arrive at comparative statistics.<sup>16</sup> A numerical count was also made of the number of outlets of certain types of activities using the Street Directories and City Telephone Directories. The results of this are tabulated in Table VI.

Information on the floor area of each function, and sample calculations of the numerical variations of categories of functions, should lead to a thorough understanding of the functioning of the area and demonstrate which functions are undergoing change most significantly or most rapidly. Information on retail sales value was unobtainable except for 1961 and even this could not be compared to any other sales data for different dates. Land value changes are not preserved but the generalized distribution of land values for 1961 appears on Map 11.

The sources outlined above together with a large number of personal communications with business owners and operators, have provided detailed coverage of land uses and elucidated motives and forces of change. The net result is a scientific statement of the extent of growth and change in the central area and an analysis of the motives behind

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<sup>16</sup> Canadian Underwriters Association, Fire Insurance Maps, ---Counter Plans for Edmonton.





this development.

## LAND USE CLASSIFICATION

To permit a detailed analysis of the land use patterns, the central area was divided into two regions on the basis of function (see Chapter I). The land use classification used gives a good understanding of the functional relationships and linkages throughout the area. Besides, this classification served as the basis for subdivision of the area. It is as follows:

1. Retail uses: every type of establishment selling goods primarily to consumers and including anything from department stores to gas stations.
2. Office uses: activities in which services rather than physical goods are sold. This group is commonly called "quaternary" services. (see Footnote 2 above).
3. Service Industrial uses: where physical goods are offered for the betterment of the consumer. Usually these goods undergo some preparation in the establishment offering them, e.g. restaurants or shoe repairs.
4. Institutional uses: include all schools, hospitals, churches and colleges in the study area.



5. Warehouse uses: include all types of storage.
6. Wholesale uses (with or without stocks): where consumers tend to be other establishments rather than individuals.
7. Manufacturing uses cover all areas where goods are fabricated or produced or altered.
8. Public uses: cover all space devoted to municipal, provincial or federal government activities. This also includes the public telephone companies.
9. Residential uses: those where individuals receive accommodation and where the term of occupancy is usually for one month or more.
10. Vacant uses include all open or unoccupied spaces as well as space devoted to parking. Parking uses have to be included since they are not recorded specifically in Street Directories.

On the basis of this classification land use was mapped consistently for each year and an analysis of the area was carried out on this basis.



## CHAPTER I

### DELIMITATION OF THE CENTRAL AREA

The central area stands in marked contrast to any other part of the city. Not only does the central area contain the greatest concentration of activities; it also contains the greatest variety of functions, including many which are not found elsewhere in the city. It is a functional region characterized by the intensity and diversity of its land use, its high land values and a concentration of pedestrian and vehicular traffic unrivalled in any other part of the city. This region stands in contrast to the surrounding areas of homogeneous residential or industrial development.

The city centre region has the normal qualities of a region. It has a core area in which definitive qualities reach their greatest intensity; it has zonal boundaries which are often impermanent. On the basis of intensity and type of development urban scholars recognize two subdivisions of this region. The first is the central business district, (hereafter called the C.B.D.), or the core of the region which has been the subject of a great variety of studies.<sup>1</sup>

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<sup>1</sup> For a comprehensive bibliography see Mary Vance, Central Business District Exchange Bibliography, No. 23, Oakland: Council of Planning Libraries, 1963.





This is the part of the central region and city with the highest land values, the tallest buildings and the greatest volume of pedestrian traffic. "It is most of all characterized by a concentration of activities not found elsewhere [in the city], especially those central offices and banks, retail stores, theatres and the like which serve the entire metropolitan area."<sup>2</sup>

The second division of the central area is termed the frame or zone of transition. This consists of a variety of land uses surrounding the C.B.D. or core where functional, geographical and historical forces, dissimilar to those in the C.B.D. or core have set up nodes of different functional groupings. This part of the region "possesses neither the advantages of the central business district (CBD) nor the conditions which are readily adaptable to a widely desirable pattern of residential living."<sup>3</sup> It is characterized by a variety of land uses which tend to segregate and form distinct nodes. While much of its area is geared to automobile traffic it has nevertheless a flow of pedestrian traffic, the intensity of which is second only to that in the C.B.D. Its land values, though less than in the C.B.D., are higher than for any other large area in the city. In

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<sup>2</sup> J. Rannels, The Core of the City, New York, 1956, page 51.

<sup>3</sup> R. E. Preston, "The Zone in Transition: A Study of Urban Land Use Patterns", Economic Geography, Vol. 42, 1966, page 236.



contrast to the C.B.D. or core, studies of this area are few in number.<sup>4</sup>

#### DEFINITION OF THE CORE AND FRAME CONCEPT

The aerial extent of the core and frame was first delimited in 1959 by Horwood and Boyce.<sup>5</sup> They based their delimitation of these two parts of the central area on both intensity and type of usage. The most intensively used area they called the "core". Here buildings are multi-story and land use is characterized by offices, retail sales and consumer service outlets, hotels and banks whose business volume is amongst the highest in the city. The remainder of the central area they designated as the "frame", an area of observable nodes of land use surrounding the core and having important functional linkages to it and to the rest of the city. The major differences and characteristics of both core and frame are shown in Table II. The major distinctions are in intensity of land use and the transportation mode. The differences in land use and land use arrangements, as well as linkages among land uses, are shown diagrammatically in Figure 2.

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<sup>4</sup> Ibid., pages 236 and 237.

<sup>5</sup> E. Horwood and R. Boyce, Studies of the Central Business District and Urban Freeway Development, Seattle, 1959, pages 9 - 25.





TABLE II - PRIMARY DIFFERENCES BETWEEN CORE AND FRAME

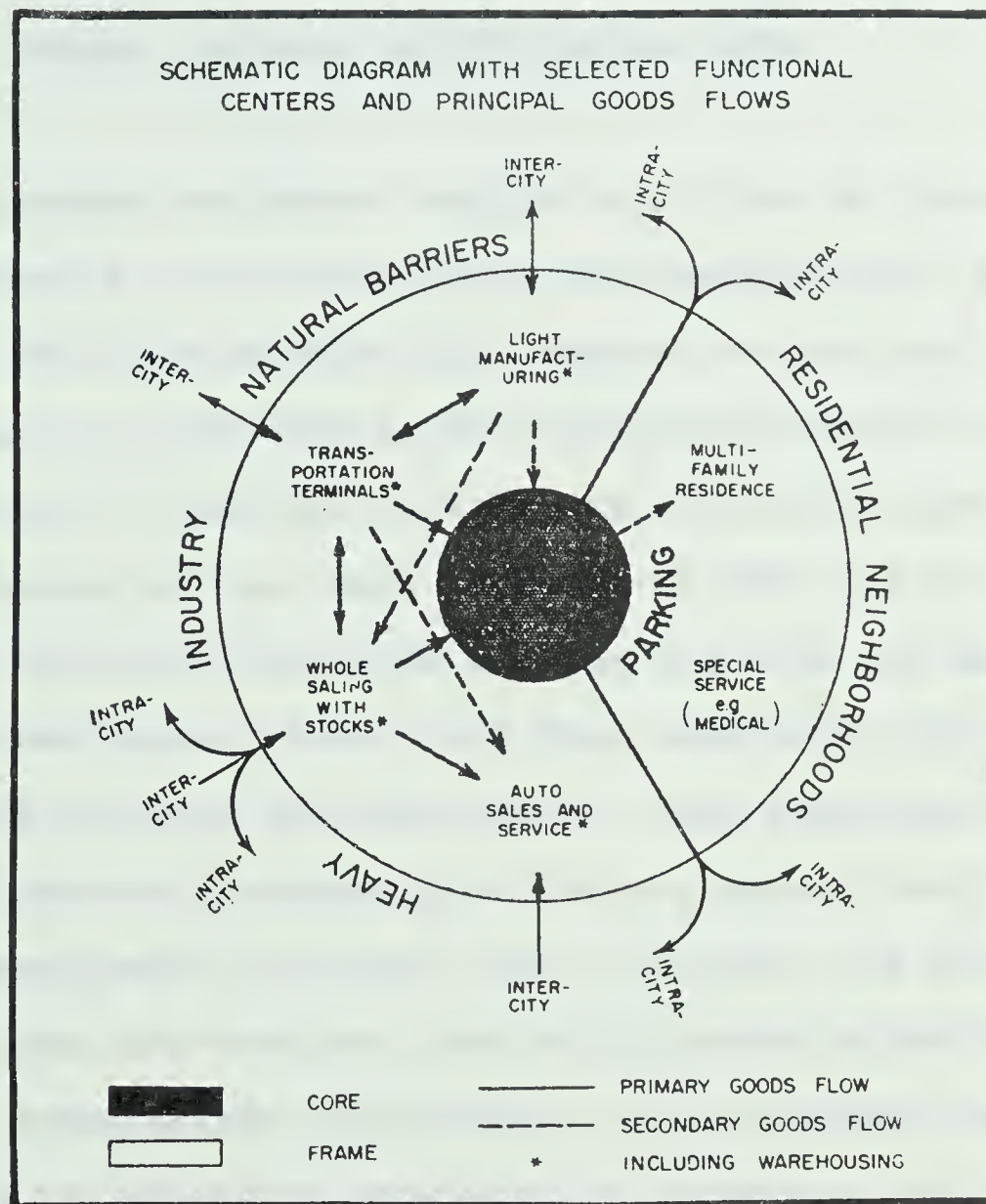
Factor	Primary Characteristics	
	Core	Frame
Land Utilization	Intensive	Semi-Intensive
Site Utilization	Fully Built on	Partly Built on
Building Types	Similar	Dissimilar
Growth	Upward	Outward
Business Linkages	Internal	External
Parking Space	Limited	Generally adequate
Transporation Mode	Pedestrian	Vehicular
Transporation Foci	Intra-city	Inter-city
Boundary Determinants	Internal factors	External factors

Source: E. Horwood and R. Boyce, Studies of the Central Business District and Urban Freeway Development, Seattle, 1959, page 22.

Such an overall view of the central area of the city provided an excellent framework for understanding the whole complex of associations and linkages within the area. From the viewpoint of the present study, however, the lack of statistically definable boundaries made it impossible to apply the concept using only the immeasurable properties set out in Table II. The lack of precise delimitation of the central area or its parts is of little consequence for any one city or for any one time. But if comparative



# CORE-FRAME CONCEPT



Source: E.M. Horwood and R.R. Boyce, Studies of the Central Business District and Urban Freeway Development, p. 21.

Figure 2



analysis is the object of the study, then rigid determination of the size and shape of the area is a prerequisite. In a study of functional change, statements of change within an area prove worthless if the boundary of that area changes.

#### OTHER CONCEPTS OF THE CENTRAL AREA

Horwood and Boyce were not the first to recognize the existence of a core area and a surrounding belt of land uses. Park and Burgess had referred to this surrounding zone of land uses as the "transition zone".<sup>6</sup> They saw proximity to a central location as the major cause of high land values in the zone. Much of it was, and is, covered by old and dilapidated housing and Park and Burgess, as well as land speculators, felt that eventually the core would expand out over the whole area. Such expansion has been offset by the development of the skyscraper which further strengthened the small core. Instead, the transition zone has become the home for uses which cannot afford the high rents demanded near the centre. It has become largely filled with low intensity uses such as automobile and furniture sales and with wholesale, light industrial and governmental uses. All consume large amounts of space. From Figure 2 it can be seen that all these functions play

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<sup>6</sup> R. Park and E. Burgess, The City, Chicago, 1925.





an active role in the well being of the centre of the region, particularly the retail function. Here, extensive whole-sale and warehouse uses have been set up to serve the retail business centre to which they often need to be adjacent. It became obvious that any study of the evolution of the core of the central area would prove of little value unless changes in the complementary activities of the frame were also known. For example the decreasing importance of the C.B.D. as a centre for consumer goods stores is paralleled by the dispersal of wholesale food companies from the frame. The ever-increasing development of the core has intensified pressure on land and increased land values, consequently, pushing large space consuming retail categories, such as furniture or automotive sales out to the frame or city suburbs. On account of these and many more linkages between core and frame, a study of just one of them would fail to achieve a comprehensive picture. By using the core-frame concept it was possible to determine the relative importance of any function in either at any date, during the period under study, and see how this function had increased or decreased over the years.

To arrive at a quantitative statement of the exact boundary of the core and frame, and consequently the whole central area, reference was made to Murphy and Vance, "Delimiting the CBD", <sup>7</sup> and Preston, "The Zone

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<sup>7</sup> R. Murphy and J. Vance, Jr., "Delimiting the CBD" Economic Geography, Vol. 30, 1954, pages 189-222.



In Transition: A Study of Urban Land Use Patterns."<sup>8</sup> Through the techniques developed in these two studies it is possible to delimit two parts of the central area that in most respects correspond to the core-frame as proposed by Horwood and Boyce.

Murphy and Vance describe the C.B.D. as that part of the city in which "one finds the greatest concentration of offices and retail stores reflected in the city's highest land values and its tallest buildings". This area is "the chief focus of pedestrian and automobile traffic. By way of the transportation net the remainder of the city and an area of decreasing intensity extending far beyond the city's corporate limits are oriented toward the C.B.D."<sup>9</sup> They describe the C.B.D. as consisting of a core area where definitive qualities reach their greatest intensity and having zonal boundaries which are often impermanent. From this they would appear to speak of an area similar to the "core" of Horwood and Boyce.<sup>10</sup> Throughout the rest of the study "C.B.D." shall be used in place of the word "core"

<sup>8</sup> R. E. Preston, op.cit., pages 236-260.

<sup>9</sup> R. Murphy and J. Vance, Jr., op.cit., page 189.

<sup>10</sup> The Definition of the "Core" by Horwood and Boyce differs from the "C.B.D." of Murphy and Vance in the following respects:

1. The core-frame concept introduces a productivity standard for retail sales.
2. The core-frame concept includes government offices in the core.
3. Auto sales and parking are excluded from the list of core functions.







since the former is better known and less open to varying interpretations.<sup>11</sup>

#### DELIMITATION OF THE C.B.D.

To obtain a continuous C.B.D. area Murphy and Vance decided to use whole city blocks as the smallest unit of measurement. To be considered part of the C.B.D. a block must be part of a contiguous group surrounding the peak land value intersection.

As a first step in the delimitation procedure land use was mapped for first, second and upper floors in all parts of the central area of the city and classified as either "C.B.D. uses" or "non C.B.D. uses".<sup>12</sup> Besides the land uses which typify this part of the city, building heights are greater here than in any other part of the city. To define the C.B.D. Murphy and Vance drew up a series of indices to measure height of buildings and intensity of C.B.D. uses in the area. To be considered part of the C.B.D. a city block must have a height index of one or more;

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<sup>11</sup> H. Davies, "The Hard Core of Capetown's CBD - An Attempt at Delimitation", Economic Geography, Vol. 36, 1960, pages 53-69.

<sup>12</sup> As C.B.D. uses Murphy and Vance include "the re-tailing of goods and services for a profit and the performance of various office functions." Non C.B.D. uses include residences, Government offices and organizational uses, industry and warehousing facilities as well as open space. R. E. Murphy and J. Vance, Jr., op.cit., pages 203-204.



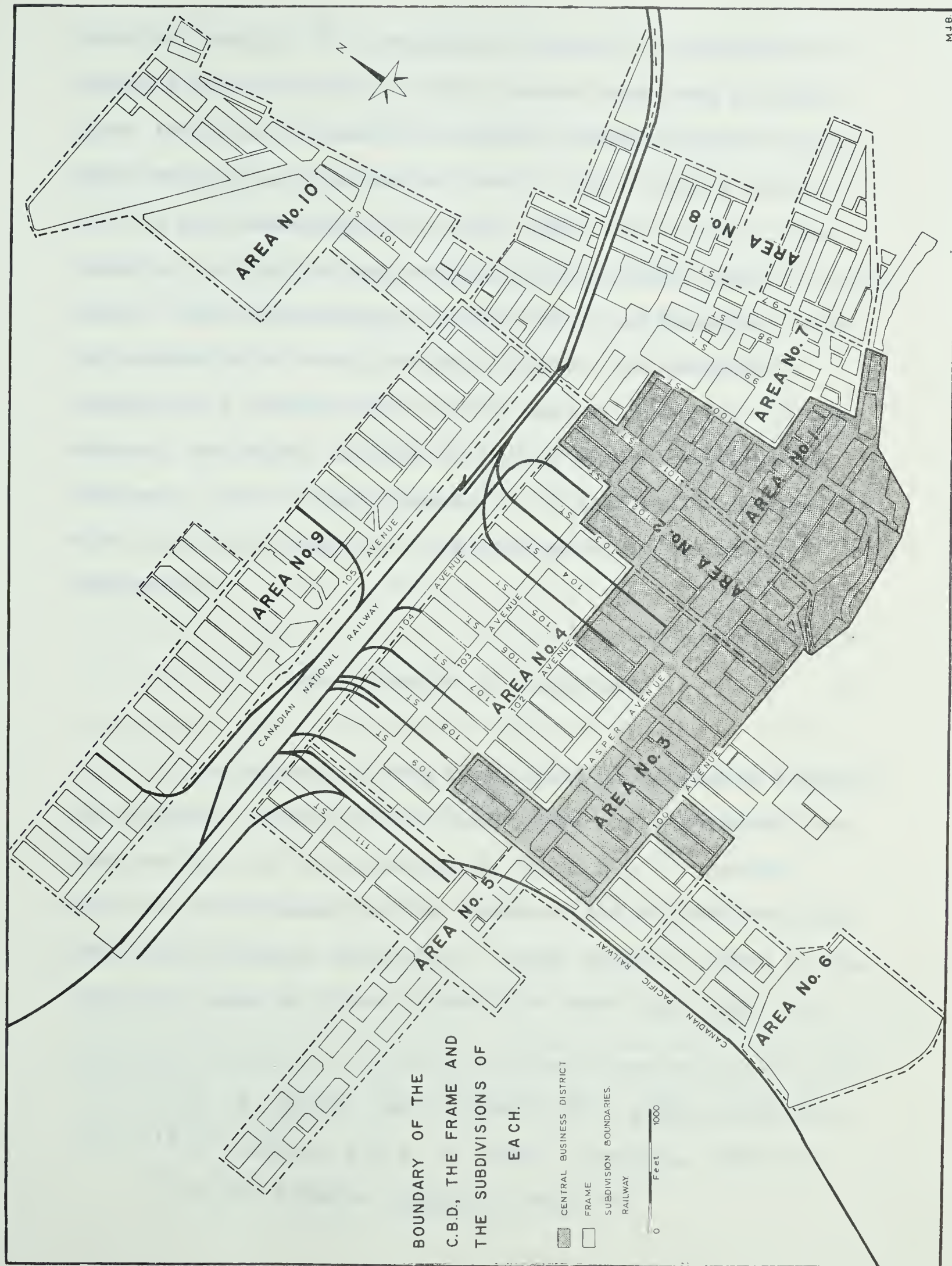
i.e. the equivalent of a one storey building devoted to C.B.D. uses and covering the entire block. As well a block must have an intensity index of central business uses of 50 per cent; i.e. the proportion of space devoted to C.B.D. uses must be half of the total floor space available in the block. Any block which has a height index of at least one and an intensity index of at least 50 per cent, and which is part of a contiguous group surrounding the peak land value intersection qualifies as part of the C.B.D. If a block of land fails to meet these indices but is surrounded by blocks that rate successfully then it too could be included.

This procedure was followed to delimit the C.B.D. of Edmonton. Land use was mapped and classified as C.B.D. or non C.B.D. uses. The date of mapping was mid 1966. From this the boundaries of the C.B.D. were drawn and are shown on Map 2. This area contains thirty city blocks of various sizes or a ground area of 4.5 million square feet excluding streets. It is used for the performance of office, retail and service functions and the intensity of use is everywhere very high. The delimitation excludes the civic administration complex as being non C.B.D. but it does include the Court House at 102A Avenue and 100 Street. This is included as Murphy and Vance would make an exception in this case "since its inclusion as central business would bring the two indices of the block to the





# THE CENTRAL AREA OF EDMONTON .







required totals".<sup>13</sup> A number of blocks to the north of Jasper Avenue from 105 to 108 Streets have been excluded since they fail to meet the height intensity specification. Large amounts of residential use in these blocks account for the low percentage of C.B.D. uses. To the West, the Canadian Pacific Railway causes a significant break in continuity. This delimitation of the C.B.D. of Edmonton, with the exception of the government centre, corresponds closely to a delimitation of the core on the basis of the Horwood and Boyce indices if we use whole blocks as the smallest unit of measurement.<sup>14</sup> If smaller units than city blocks are used then the area would be extremely fragmented.

#### DELIMITATION OF THE FRAME

In delimiting the transition zone Preston adopted the land use classification used by Murphy and Vance, (see footnote 12) for delimitation of the C.B.D.<sup>15</sup> Preston modified this classification somewhat and divided the land uses into two major groupings - those commonly found in the transition zone or frame (transition zone land uses) and

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<sup>13</sup> R. E. Murphy and J. Vance, Jr., Ibid., page 219.

<sup>14</sup> E. Horwood and R. R. Boyce, op.cit., page 22.

<sup>15</sup> R. E. Preston, op.cit., page 238.



those which typically mark the outer edge of the zone (non transition zone uses).<sup>16</sup>

The inner boundary of the transition zone is defined as the outer limit of the C.B.D. as delimited by Murphy and Vance. To determine the outer limit of the transition zone all blocks having 30 per cent of their area devoted to transition zone uses are included, if they are contiguous to one another or the C.B.D. Preston feels that "an outer boundary based on the value of 30 per cent appeared to give the most realistic line of separation between the transition zone and the surrounding areas of distinctly non transition zone character".<sup>17</sup> The delimitation of the transition zone on the basis of intensity of use provides a technique which can be related to Murphy and Vance's method of delimiting the C.B.D. The transition zone so defined corresponds closely to frame as defined by Horwood and Boyce. The major differences in the two methods concern the inner boundary and are noted in footnote 10.

Together with the C.B.D. this transition zone

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<sup>16</sup> Transition zone uses include various types of retail services and office functions, especially headquarters offices. It also includes governmental and organizational uses, warehouse and wholesale functions and also parking space. Non transition zone uses include residences, large areas of manufacturing use or open space as well as railroad yards. Ibid., page 239.

<sup>17</sup> Ibid., page 244.





helps delimit a central area co-extensive with the core and frame as suggested by Horwood and Boyce. Since the term "transition zone" tends to indicate a state of flux rather than a distinct functional area it will for the rest of this work be replaced by the term frame.

In the case of Edmonton the frame as defined above covers fourteen million square feet excluding streets (Map 2). This includes large nodes of wholesale, warehouse, manufacturing and both provincial and municipal government uses. Large areas are also occupied by commercial, institutional and residential uses. Railroads are excluded but, as in the case of Preston's own study of Worcester, they are not considered to constitute a significant break in an area primarily geared to automobile traffic.<sup>18</sup>

On all sides, except the southeast, the frame constitutes a contiguous zone around the core. In almost all cases the outer limit of the frame is marked by a significant break in development. On all sides it is adjoined by homogeneous residential neighbourhoods or an effective physical barrier. One small exception is the development of highway oriented commercial activity on Jasper Avenue from 110 to 118 Streets where a major break in commercial use occurs. Only the narrow ends of these blocks face Jasper Avenue, or are used for commercial

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<sup>18</sup> Ibid., page 245.



development. As a result they all fall below the 30 per cent index specified by Preston and are not strictly part of the central area or the frame. But, since this is more the result of survey peculiarities than functional differentiation it will be included as part of the central area and the frame in both the maps and discussion.

This delimitation of the central area does not cut across areas of functional homogeneity or divide areas of similar land uses. It defines a region within which commercial and other forms of activity have congregated as well as functions that need to be close by to ensure successful operation of the whole. The delimiting line between the frame and the C.B.D. is also very real and distinguishes two areas where different functions have produced different patterns and intensities of land use.





## CHAPTER II

### CENTRAL AREA CHANGE:

#### MEASUREMENT AND GENERAL TRENDS

Since 1946 the population of the metropolitan area of Edmonton has increased by more than 200 per cent. This massive increase, together with an even greater expansion of the economy, has led to widespread changes within the city itself. These changes are reflected in the growth of residential neighbourhoods, the expansion of industrial areas, the increasing size of wholesale districts and the spread of neighbourhood commercial shopping centres to many suburban areas. The pace of development is best reflected by the value of building permits issued by the City of Edmonton. In 1946 building permits for the city were valued at \$15 million; by 1950 their value had increased to \$46.5 million and they have continued to increase since then until 1966 when they reached an all time high of \$135.6 million.<sup>1</sup> This investment has led to the establishment of new patterns of land use throughout the whole city. But a greater proportion of this capital was invested in the central area than in any other area of the city of similar size. Much of this investment in the central area was for the erection of new offices and service industrial outlets.

Map 3 (Age of buildings) shows that close to 50

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<sup>1</sup> Personal Communication- City Architects Dept. Edmonton.





**AGE OF BUILDINGS**

- LESS THAN 10 YEARS
- 10 TO 20 YEARS
- 20 TO 40 YEARS
- OVER 40 YEARS

RAILWAY

--- C.B.D. BOUNDARY

FEET 1000

SOURCE: TAX ASSESSMENT CARDS 1963 AND UPDATED BY FIELD SURVEY.

LESS THAN 10 YEARS

10 TO 20 YEARS

20 TO 40 YEARS

OVER 40 YEARS

--- C. B. D. BOUNDARY

SOURCE: TAX ASSESSMENT CARDS  
1963 AND UPDATED BY  
FIELD SURVEY.





per cent of the central area lots have had new structures erected upon them since 1946. Many of these buildings are of a "walkup" nature but many are also multi-story. (See Map 10). Map 3 has been compiled from information extracted from City Tax Assessment Rolls by the staff of the City Planning Department in 1963 and updated to 1966 by field survey by the author. This map gives an accurate picture of the age of all buildings, as classified by the Tax Assessment Department. It reflects the concentrated investment in this area since 1946 and more especially since 1956. The distribution of these new structures will be discussed in the succeeding chapters.

This thesis sets out to study land use changes, not changes of form per se. But since new forms often reflect new functions Map 3 was of unlimited assistance in identifying changes in the land use pattern. Nevertheless, to study changing land use patterns, land use itself, not its physical form, must be the subject of study. Land use maps were constructed from the Edmonton Street Directories for 1946, 1950, 1955 and 1960.<sup>2</sup> These maps give a comprehensive picture of land use in the central area for these dates and, since the source of the information was the same throughout, they are easy to compare. The use of the Directories however, has two major failings which affect

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<sup>2</sup> Henderson's Edmonton Street Directories, Henderson and Co., Winnipeg, 1946, 1950, 1955 and 1960.





the information in this study or its presentation. Firstly, many firms use a large adjacent yard for another use, storage or parking for example, and this is not listed separately from the main function of the firm. This led to some discrepancy in the size of the warehouse function between 1960 and 1966 (See Chapter VI). Secondly, very often the Directories do not differentiate between ground and upper floor uses and so all information had to be mapped on a single map for each date, rather than a separate map for each floor. The results of the information extracted from the Directories appear on Maps 4 to 7 inclusive.

The land use map for 1966 had to serve as a basis for area delimitation (Chapter I). It was compiled in July, 1966 by field survey and results for ground, second and upper floor uses constitute Maps 8, 9, and 10.

All these land use maps present a clear picture of changing patterns. They show the increasing dominance of office and service industries in the C.B.D. at the expense of residential space. In the frame government and manufacturing uses also expanded at the expense of older residences while the new Civic Centre replaces a virtual waste of space. From these maps the changes in the land use pattern can be traced and the westward shift of activities prior to 1966 is clearly demonstrated. By 1966, however, the new Civic Centre development had revitalized the eastern part of the frame and had halted, at least



temporarily, the westward drift of office functions.

For a thorough understanding of the movements which have taken place it is necessary to analyze the intensity of change, in terms of size or area, as well as just the direction of change. It was possible to arrive at an estimate of the floor space devoted to each function at each date in every block by use of both the land use maps and the Fire Insurance Maps of the City of Edmonton.<sup>3</sup> These Fire Insurance Maps show the outline of every structure existing in the city in 1964. From these the floor space of each building was calculated. Reference was then made to the land use maps from which the area of each function in each of these buildings was calculated for each block and for the C.B.D. and frame. This method presented little difficulty in assessing past floor areas since most displaced structures were of residential nature. From field interviews it was determined that the displaced buildings were approximate in size and area to those of similar age still existing close by.

The results of these calculations constitute Tables VII to XI inclusive and from these statistics Tables III, IV and V were calculated. Tables III, IV and V show the percentage change in the actual floor area of each function over a given period for the whole central area, the C.B.D. and the frame.

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<sup>3</sup> Fire Insurance Maps, Canadian Underwriters Association, Counter Plans for Edmonton, Vol. 1-2.





Figures III, IV and V show the percentage of the central area, the C.B.D. and the frame used by each function in each of the study years.

TABLE III - PERCENTAGE CHANGE IN SPACE USED BY EACH FUNCTION IN CENTRAL AREA

Function	1946-50	1950-55	1955-60	1960-66	1946-1966
Retailing	+6.0	+7.8	-6.4	+2.2	+9.3
Office	+13.9	+10.0	+30.0	+29.1	+111.3
Service					
Industry	+29.1	+5.0	+7.7	+46.9	+114.5
Institutional	-3.4	+5.1	-3.4	+2.5	-0.5
Warehouse	-28.5	-2.9	+13.2	+115.5	+69.6
Wholesale	+44.9	-4.8	+18.5	-0.7	+61.9
Manufacturing	+9.1	+10.1	+20.6	-15.2	+22.7
Public	+1.1	+75.5	+19.1	+44.6	+205.4
Residential	-14.1	-18.3	-14.0	+53.9	-7.1
Vacant	-4.3	+3.0	-10.7	+81.6	+21.7
Total	+2.9	+4.7	+6.5	+26.4	+45.5

Source: Tables VII to XI

TABLE IV - PERCENTAGE CHANGE IN SPACE USED BY EACH FUNCTION IN THE C.B.D.

Function	1946-50	1950-55	1955-60	1960-66	1946-1966
Retailing	+0.4	+2.3	-16.4	+10.4	-5.2
Office	+9.8	+13.5	+29.7	+28.1	+115.5
Service					
Industry	+44.1	-3.0	+3.4	+76.9	+155.7
Institutional	-1.7	+1.5	+0.1	-2.5	-2.7
Warehouse	-59.6	-60.3	+551.1	-21.5	-0.1
Wholesale	-0.5	+64.0	+15.2	+6.8	+102.8
Manufacturing	+42.0	-23.0	-9.0	-40.3	-78.8
Public	+7.5	+7.8	+28.0	+68.6	+150.6
Residential	-33.0	-16.8	-39.4	-35.1	-78.8
Vacant	-25.0	-25.9	+17.2	+39.2	+61.5
Total	+5.3	+4.2	+3.0	+29.0	+45.2

Source: Tables VII to XI





TABLE V - PERCENTAGE CHANGE IN SPACE USED BY  
EACH FUNCTION IN THE FRAME

Function	1946-50	1950-55	1955-60	1960-66	1946-1966
Retailing	+17.5	+17.3	+8.7	+7.3	+38.9
Office	+13.1	+3.6	+30.6	+31.7	+101.6
Service					
Industry	+3.9	+23.9	+15.4	-2.3	+45.1
Institutional	-4.7	+7.9	-5.7	+5.8	-2.8
Warehouse	-27.3	-1.7	+8.6	+122.7	+72.9
Wholesale	+50.9	-11.0	+19.0	-2.2	+56.3
Manufacturing	-4.7	+30.6	+31.5	-8.9	+49.1
Public	+0.2	+88.9	+21.1	+38.4	+218.4
Residential	-5.7	-18.8	-5.9	+72.3	+24.2
Vacant	-3.5	-2.5	-10.7	+24.2	+7.7
Total	+2.0	+5.1	+9.0	+24.9	+45.8

Source: Tables VII to XI.

These figures are derived from Tables VII to XI also. They reveal the different types of functions which were undergoing change in either the C.B.D. or the frame. Figure 4 shows the changing significance of each function within the C.B.D. while Figure 5 shows the same information for the frame. But these figures do not tell any of the internal movements within the C.B.D. or the frame. So on Map 2 the central area was further divided into ten sub areas. These areas were drawn on the basis of statistics already collected and the changing significance of each function within each of these areas will be examined in detail in the following chapters.

Areas No. 1, 2 and 3 are within the C.B.D.

Area No. 1 covers thirteen city blocks and includes the



old financial centre, part of the retail axis and some public uses. Area No. 2 covers seven city blocks just west of 101 Street and these are largely devoted to retail uses. Area No. 3 covers the western end of the C.B.D. which has undergone much change since 1946. Areas No. 4 to 10 are in the frame and they represent the wholesale, automobile sales, the provincial government, the civic centre, Boyle Street, manufacturing and 101 Street strip-commercial districts respectively (Map 2). Then floor area statistics were calculated for each of these sub areas and are shown in terms of proportionate importance in figures 6 to 15 inclusive. These help show more clearly and precisely where the most significant functional changes are or were occurring.

Figures 6 to 15, then, show where the most significant changes took place, while Table VI provides a break-down of each function into sub categories to show how they have changed numerically from year to year in both the C.B.D. and the frame. This Table was constructed from two sources. The categories of retail, manufacturing and service industrial uses are derived from a count of the information taken from the Street Directories for 1946, 1950, 1955, 1960 and 1966. The figures for office, warehouse and wholesale uses are taken from those listed in the City Telephone Directories for the same dates. The City Telephone Directories had to be used for these





categories since it was not possible to extract this data from Street Directories in the time available. Having discovered the change in the floor space of a function in a given area, Table VI helps pinpoint the types of outlets which are changing most rapidly and most significantly.

Between 1946 and 1966 the total floor space in the central area increased by 45.5 per cent; by 45.2 per cent in the C.B.D. and by 45.8 per cent in the frame (Tables III, IV and V). This represents an actual floor area increase of 6,035,155 square feet in the central area; 2,503,080 square feet in the C.B.D. and 3,582,075 square feet in the frame.

Table III shows that most of this increase in the central area resulted from a 111.3 per cent increase of office space, a 114.5 per cent increase of service industrial space and a 205.4 per cent increase in the area devoted to public uses. As a result, offices replaced retail outlets as the greatest space consumers, while public and service industrial uses also became of greater proportionate importance (Figure 3). In the C.B.D., retail space declined by 5.2 per cent and residential and manufacturing uses by 78.8 per cent each (Table IV). But these decreases were compensated for by a 115.5 per cent increase in office space, a 155.7 per cent increase in service industrial floor area and a 150.6 per cent increase in public space use. These increases reflect the growing



importance of office and service industry functions within the C.B.D. where they consumed a total of 55.5 per cent of total floor space in 1966 as compared to 36 per cent in 1946 (Figure 4).

In the frame the most significant absolute increases were registered in public use (218.4 per cent), warehousing uses (72.9 per cent) and in office space (101.6 per cent). These figures reflect the changing patterns shown on Maps 4, 8, 9 and 10. They reflect the growing complexities of both provincial and municipal governments which were constantly expanding; they reflect the importance of the frame as a centre for office services not demanding face-to-face contacts with other professional groups. In 1946 residential and vacant uses were most important in the frame. By 1966 a number of functions each consumed close to 10 per cent of the total area of the frame. Vacant space, however, was the largest unit (Figure 5). Figures 11, 12 and 14 show that the growth of the past twenty years has radically changed the functional composition of areas No. 6, 7 and 9. Area No. 6 has become almost exclusively an area of public uses; Area No. 7 has been radically reorganized as a result of the Civic Centre development while in area No. 9 residential floor space has been pushed out by manufacturing and warehouse uses.

These changes led to changing roles for both the C.B.D. and the frame and a change in their relation





to one another. These developments are more closely examined in Chapters III to VI where functional change is examined at approximately five year intervals.

In conclusion these data show that both the C.B.D. and the frame extended the area devoted to their functions at the expense of non-central area functions. Today, residential and vacant space account for 24 per cent of the central area as compared to 33 per cent in 1946 (Figure 3). In the C.B.D. the exclusion of unsuitable uses was even more pronounced since C.B.D. uses now consume 76 per cent of total floor space as compared to 66 per cent in 1946 (Figure 4).

This demonstrates the continuing growth of central area functions and their ability to pay high rents and survive in an area of maximum demand.





TABLE VI - NUMBER OF OUTLETS OR PRACTITIONERS IN CATEGORIES OF EACH FUNCTION

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
<u>RETAIL USES</u>					
<u>Food Group</u>					
Grocery Stores	12	8	7	4	1
Fruit & Vegetable Stores	4	2	1	1	-
Meat, Fish, Poultry Stores	10	9	7	6	5
Candy & Nuts Stores	11	6	5	3	6
Waffle Stores	1	1	1	1	-
Health Foods Stores	-	-	-	-	1
Liquor Stores	1	1	1	1	1
<u>Apparel Group</u>					
Fur Stores	14	11	10	9	12
Ladies Wear Stores	16	17	19	28	33
Mens Wear Stores	10	14	18	19	18
Other Clothes Stores	19	17	18	13	16
Shoe Stores	11	11	14	14	22
<u>General Retail</u>					
Department Stores	7	10	12	9	10
Variety Stores	2	2	2	2	1
Antique Stores	-	-	-	-	1
Book Stores	6	4	8	5	6



TABLE VI -(cont'd.)

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
RETAIL USES					
General Retail (cont'd)					
Flower Stores	4	4	5	5	8
Jewelry Stores	18	18	26	20	19
Smoke Stores	10	6	6	5	2
Drug Stores	18	15	15	15	16
Coal Sales	3	2	-	-	-
Second Hand Stores	13	14	10	10	7
Sewing Machine Stores	-	1	1	1	2
Bicycle Stores	3	2	1	-	-
Gift & Souvenir Stores	7	4	3	2	5
Music Goods Stores	5	5	5	5	3
Luggage, Leather & Camera Stores	2	2	3	3	4
Hobby Stores	2	1	1	1	1
Appliance Group					
Furniture Stores	9	12	8	7	5
Hardware & Dry Goods Stores	8	9	13	9	4
Appliance & Electrical Stores	11	8	9	8	2





TABLE VI - (cont'd)

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
<b>RETAIL USES</b>					
<u>Automotive Group</u>					
Automobile Sales Stores	5	6	13	12	10
Gas Station Sales Stores	9	14	10	12	8
Tire, Battery, Parts Stores	9	7	4	8	5
<b>OFFICE USES</b>					
<u>Medical Group</u>					
Physicians & Surgeons	106	4	124	4	136
Physio-Therapists	3	-	7	-	4
Dentists	75	-	80	-	86
Chiroprodists	1	-	5	-	7
Chiropractors	7	1	5	1	8
Naturopaths	-	-	-	-	1
Optometrists	6	-	7	-	8
<u>Other Professionals</u>					
Veterinarians	-	3	-	2	-
Architects	11	1	13	2	5
Accountants	9	-	18	1	19
Barristers	80	-	97	2	106
Engineers	6	-	10	3	12



TABLE VI - (cont'd)

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
<b>OFFICE USES</b>					
<b>Financial Group</b>					
Banks	11	2	12	4	17
Finance Agents	13	-	16	2	30
Stockbrokers	5	-	10	-	9
Real Estate Agents	82	4	58	12	64
Fire Insurance	37	2	66	4	54
Life Insurance	36	1	40	4	55
Manufacturing Agents	13	13	8	24	11
					7
				24	19
<b>SERVICE INDUSTRIAL USES</b>					
Hotels & Motels	11	4	16	5	16
Restaurants	48	20	37	28	41
Cleaners	22	19	22	12	14
Hairdressers	67	17	49	24	53
Shoe Repairs	10	5	6	3	5
Funeral Parlors	1	1	3	1	3
Photographic Studios	12	3	15	7	13
Schools of Dancing	1	1	1	-	1
Ballrooms	3	1	3	1	3
Gymnasiums	1	-	1	-	1
Bowling Alleys	1	-	-	1	1
Billiard Halls	3	2	4	2	6
Skating Rinks	-	1	-	1	-
Theatres	4	1	6	1	6
Turkish Baths	1	-	2	-	1
Plumbers	5	3	-	2	1
Blacksmiths	-	3	-	1	-



TABLE VI - (cont'd)

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
SERVICE INDUSTRIAL USES					
Window Cleaners	1	1	-	-	-
Parcel Deliveries	1	-	-	-	-
Upholsterers	1	-	1	1	2
Dressmakers	2	2	1	-	1
Book Binders	-	-	-	-	-
Lithographers	-	-	-	-	-
& Engravers	2	3	1	1	1
Sign Painters	2	-	2	1	1
Radio Stations	4	5	5	7	8
Ambulance Services	-	-	-	1	1
INSTITUTIONAL USES					
Churches	6	7	7	7	7
Schools & Colleges	1	1	1	1	1
Hospitals	-	-	-	-	-
WAREHOUSE USES					
Cold Storage	-	-	-	1	-
Food Storage	-	-	-	-	-
Lockers	-	-	-	1	1
Moving Companies	1	1	1	7	6
Household Storage	-	1	1	1	2
Public Merchandise	-	-	-	-	-
Warehouses	-	-	-	3	3





TABLE VI - (cont'd)

Classification	1946	1950	1955	1960	1966
Function	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame	C.B.D. Frame
<b>WHOLESALE USES</b>					
Shoes	1	7	8	1	1
Drugs	2	2	3	1	-
Florists	-	-	-	-	2
Dry Goods	9	10	10	3	2
Furniture	-	1	2	1	1
Grocery	2	-	8	-	-
Fish & Meat	1	3	5	4	3
Fruit	2	5	7	-	-
Tobacco	2	5	5	4	1
Confectionery	1	6	5	4	3
Sporting Goods	1	1	2	-	6
Paper Products	3	1	1	-	4
Electrical Goods	-	3	7	-	4
Hardware	2	5	6	1	12
Fuel	-	1	9	11	7
			2	1	2
<b>MANUFACTURING USES</b>					
Dairies	1	3	3	1	2
Flour Mills	1	6	4	-	2
Printers	10	11	12	6	13
Newspapers	3	4	3	3	4
Tent & Awning	-	1	1	-	1
Tanneries	-	1	1	-	1
Foundries	-	3	4	-	1
Building Contractors	1	2	10	-	11
	3	3	4	2	5

Source: City Telephone and Street Directories, 1946, 1950, 1955, 1960 and 1966.



# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

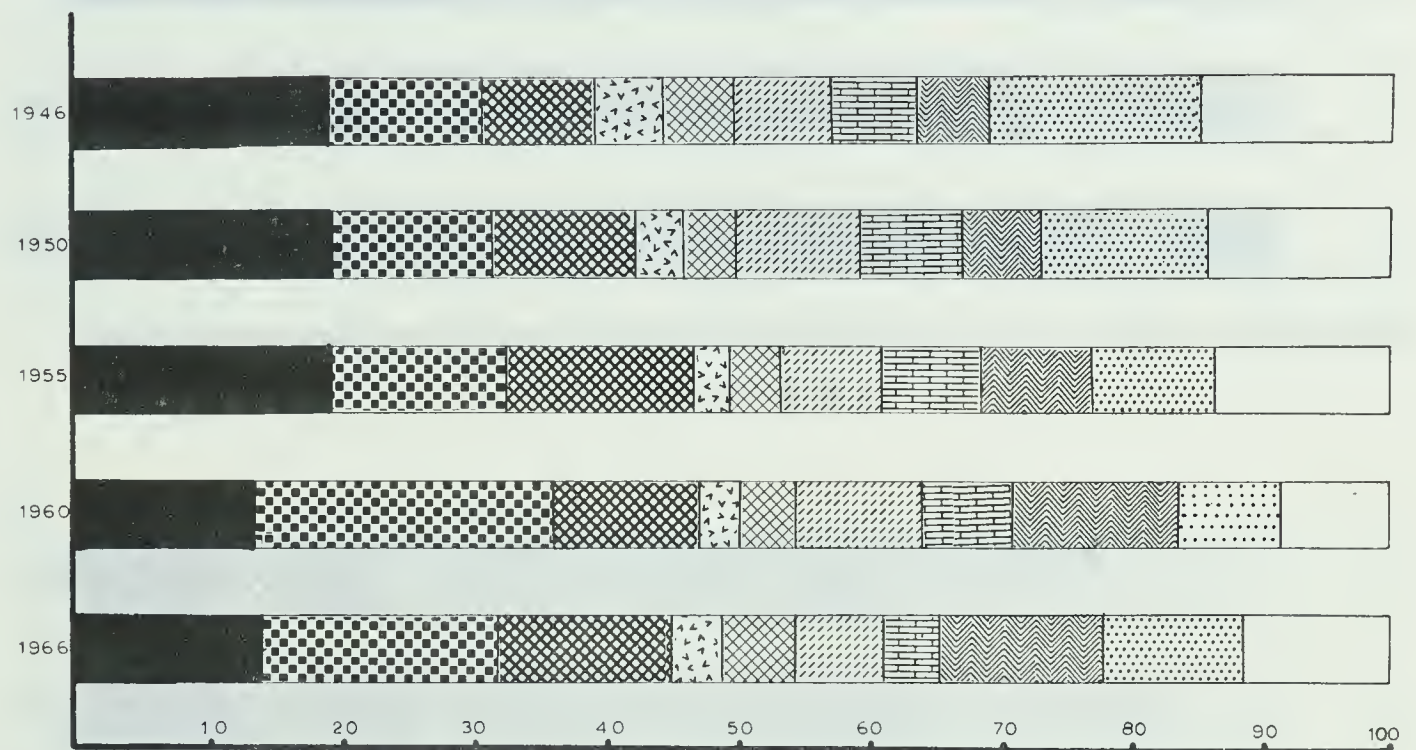
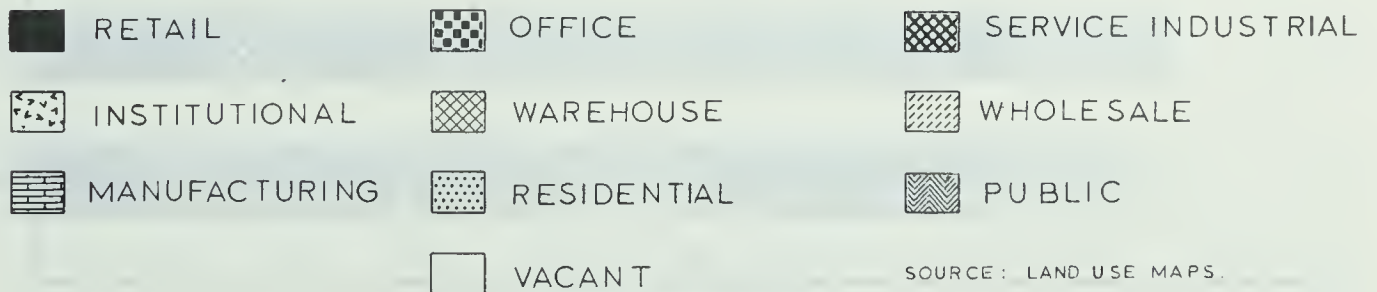


FIG. 3 - CENTRAL AREA



SOURCE: LAND USE MAPS.





# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

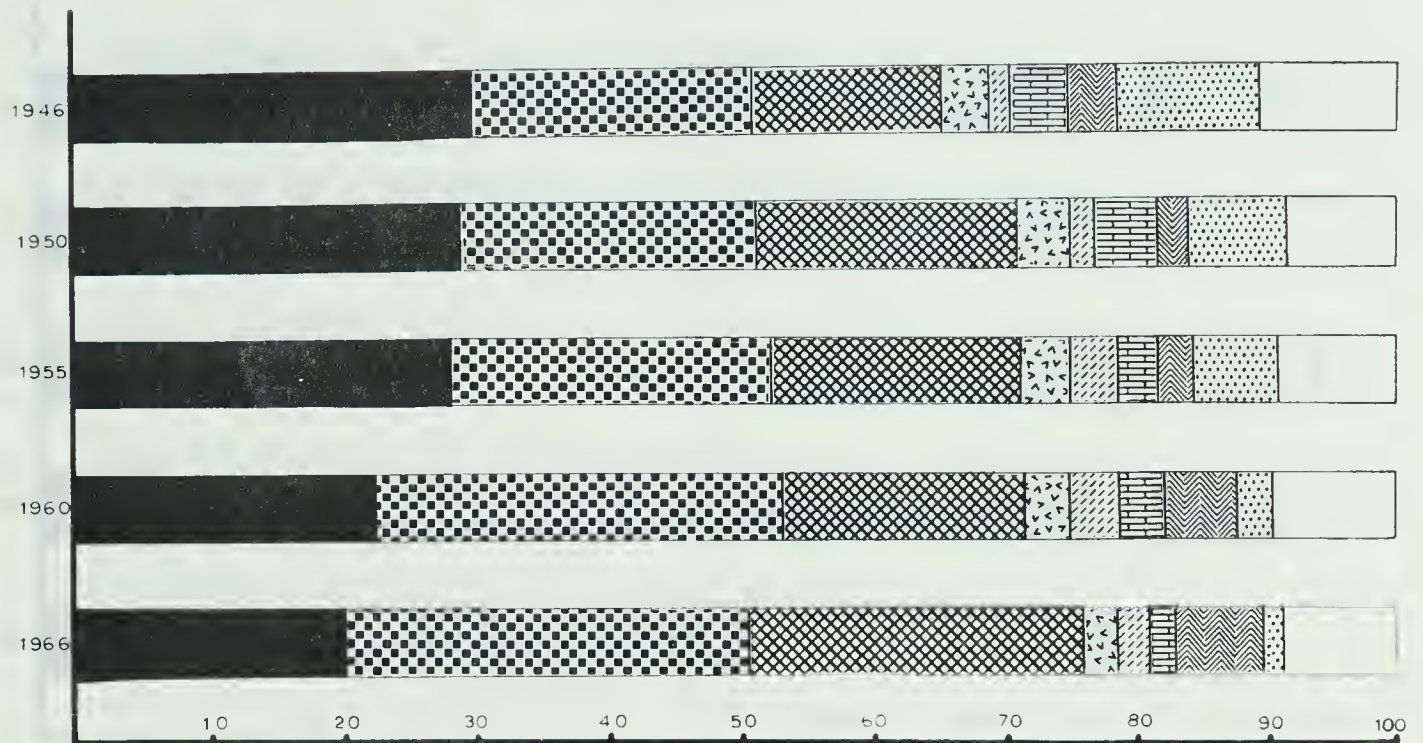


FIG. 4 - C.B.D.

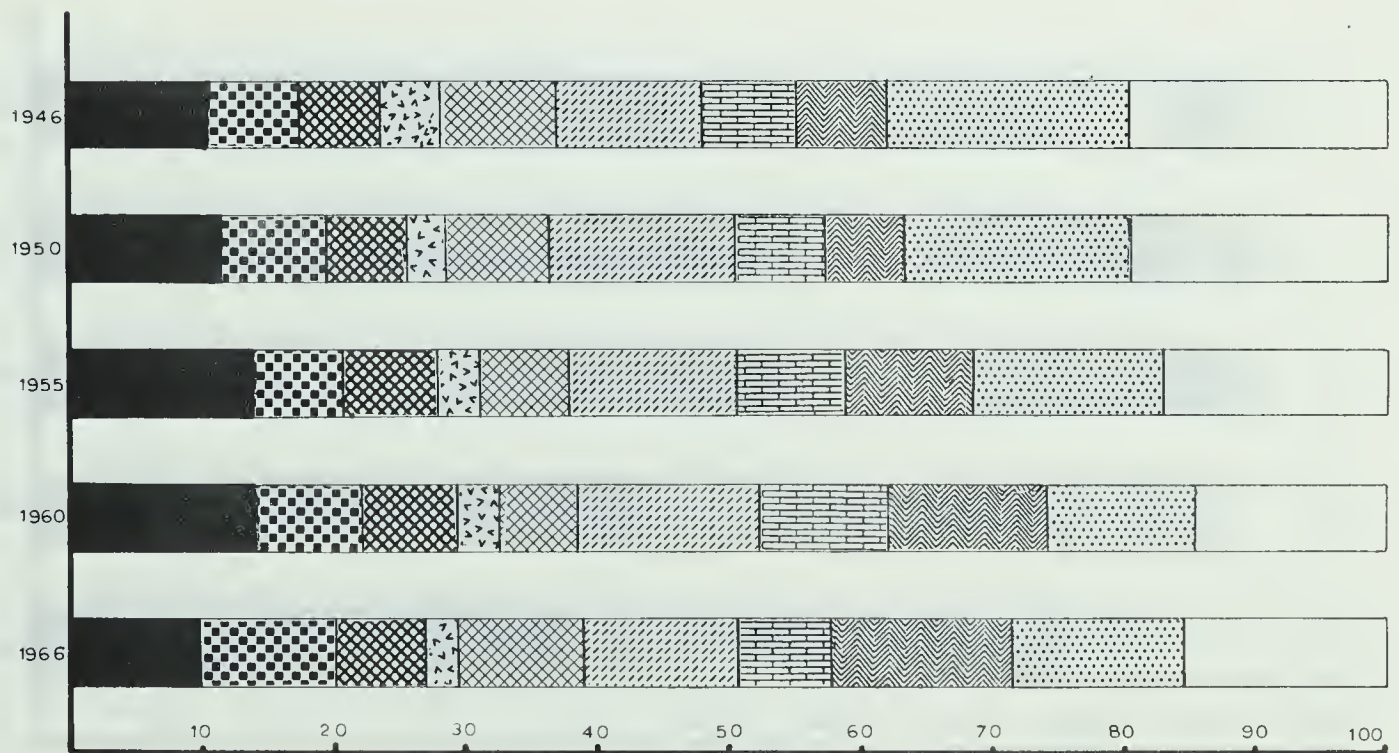
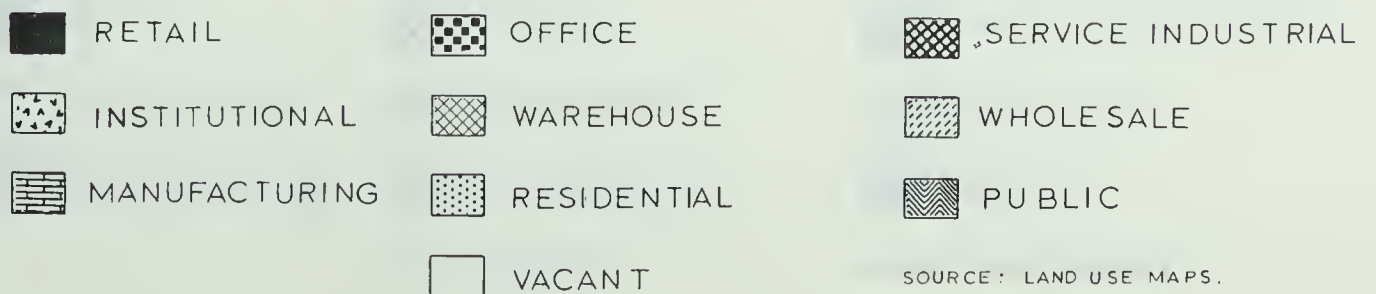


FIG. 5 - FRAME







# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

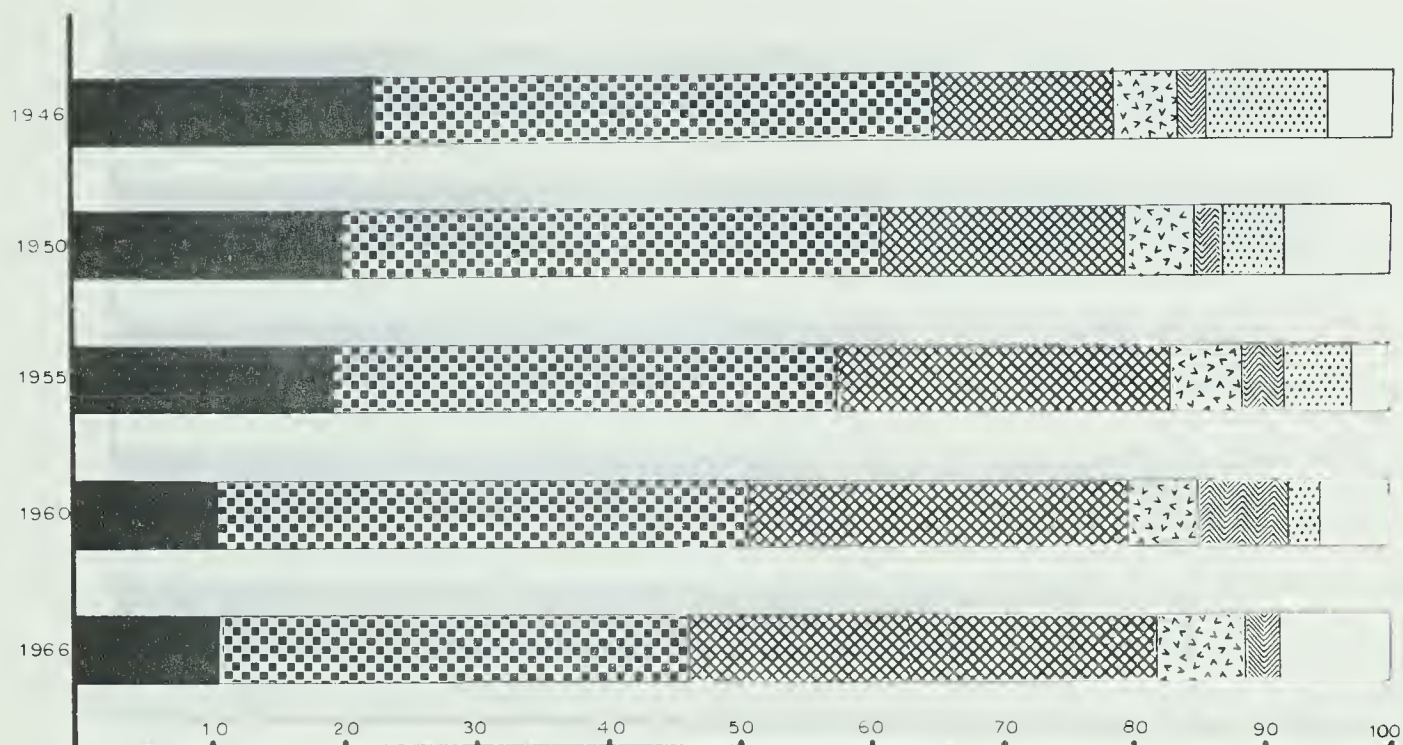


FIG. 6 - AREA No. 1

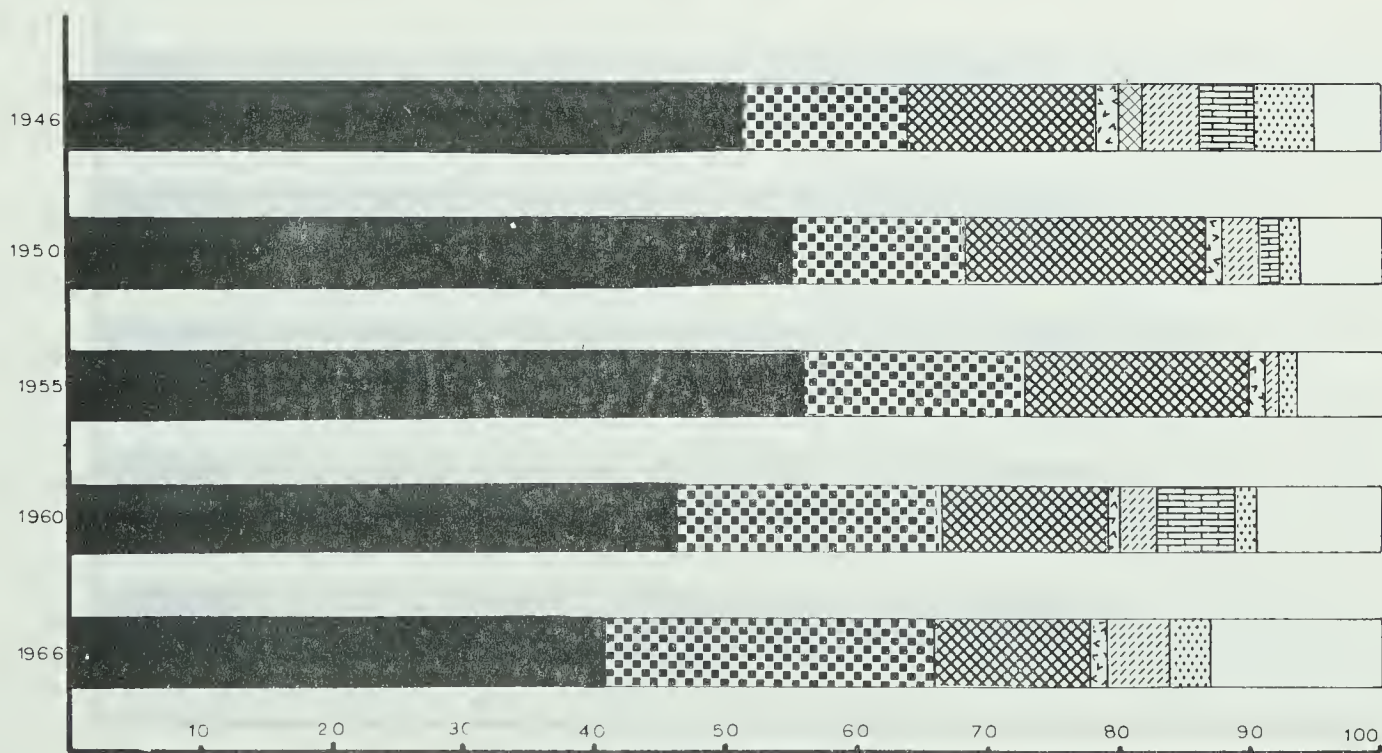
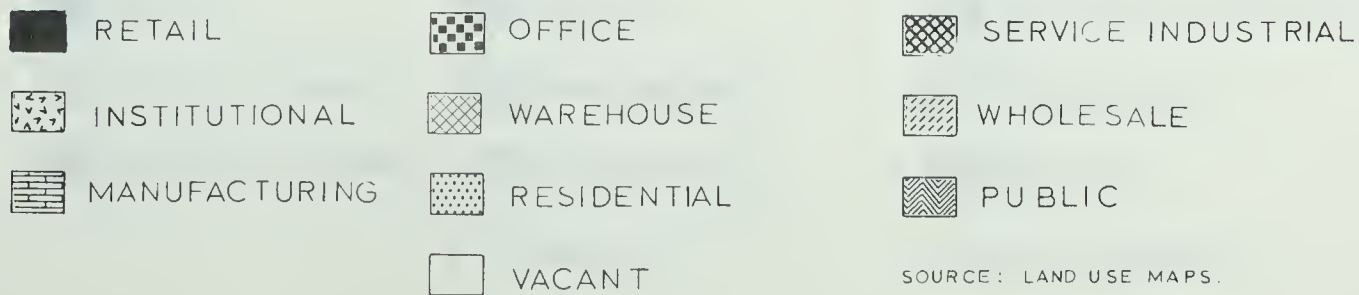


FIG. 7 - AREA No. 2







# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

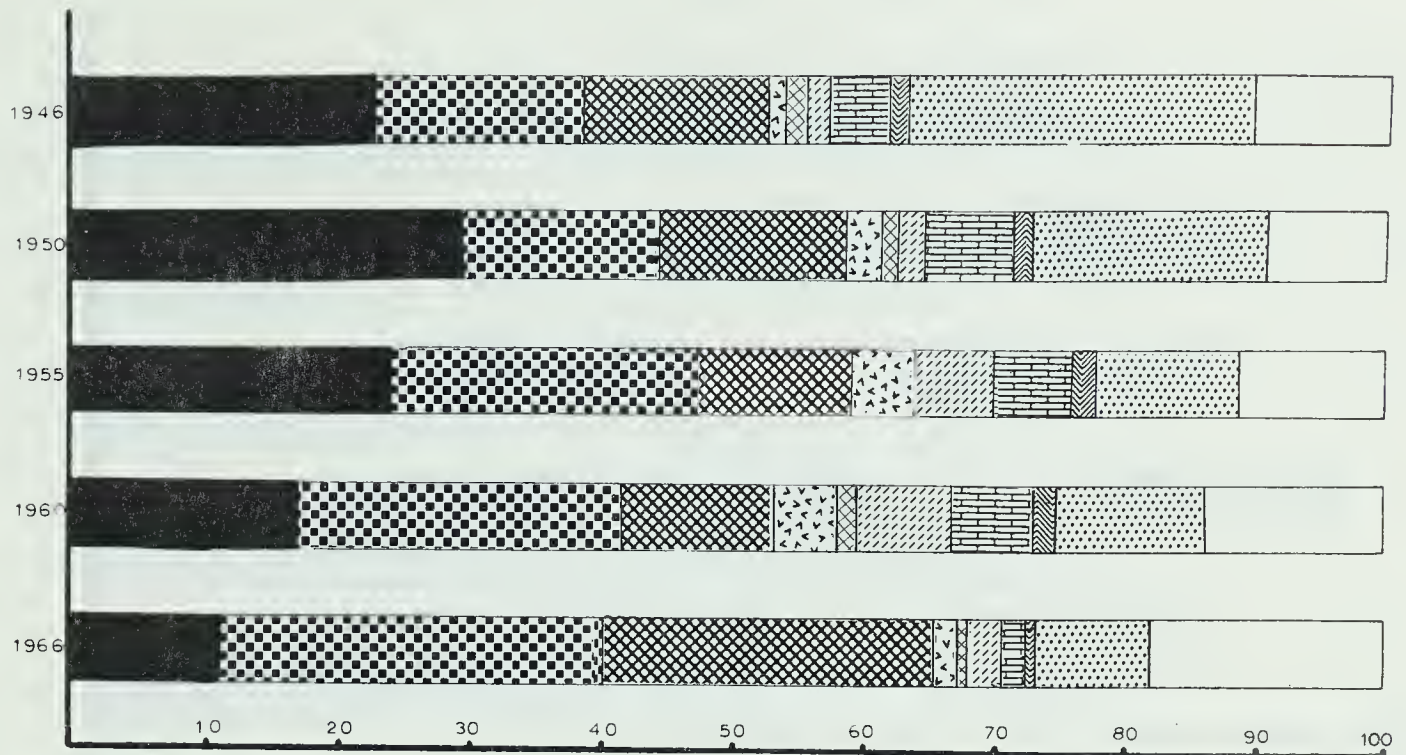


FIG. 8 - AREA No. 3

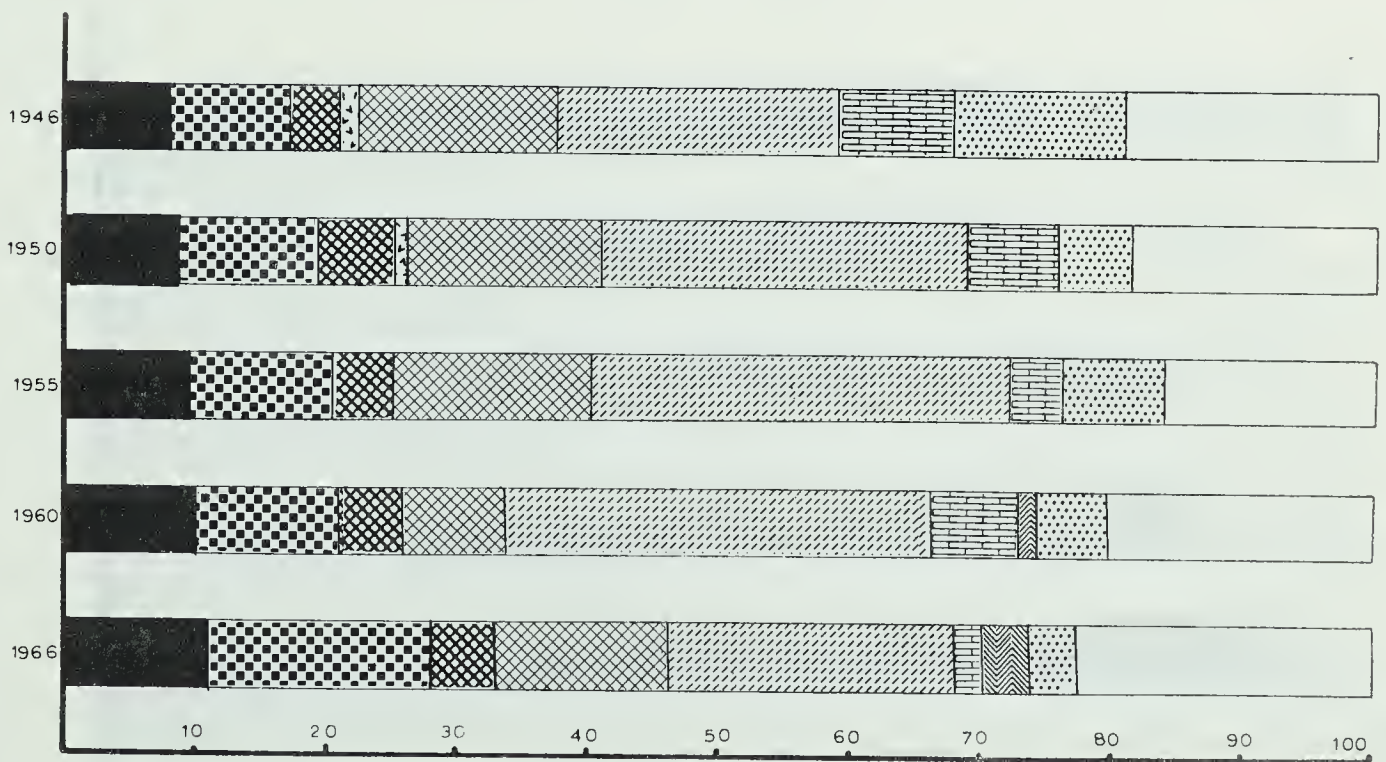
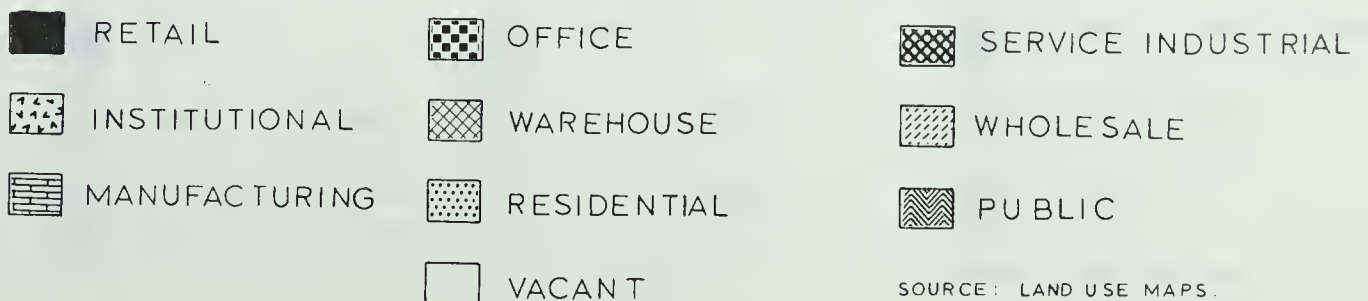


FIG. 9 - AREA No. 4



SOURCE: LAND USE MAPS.





# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

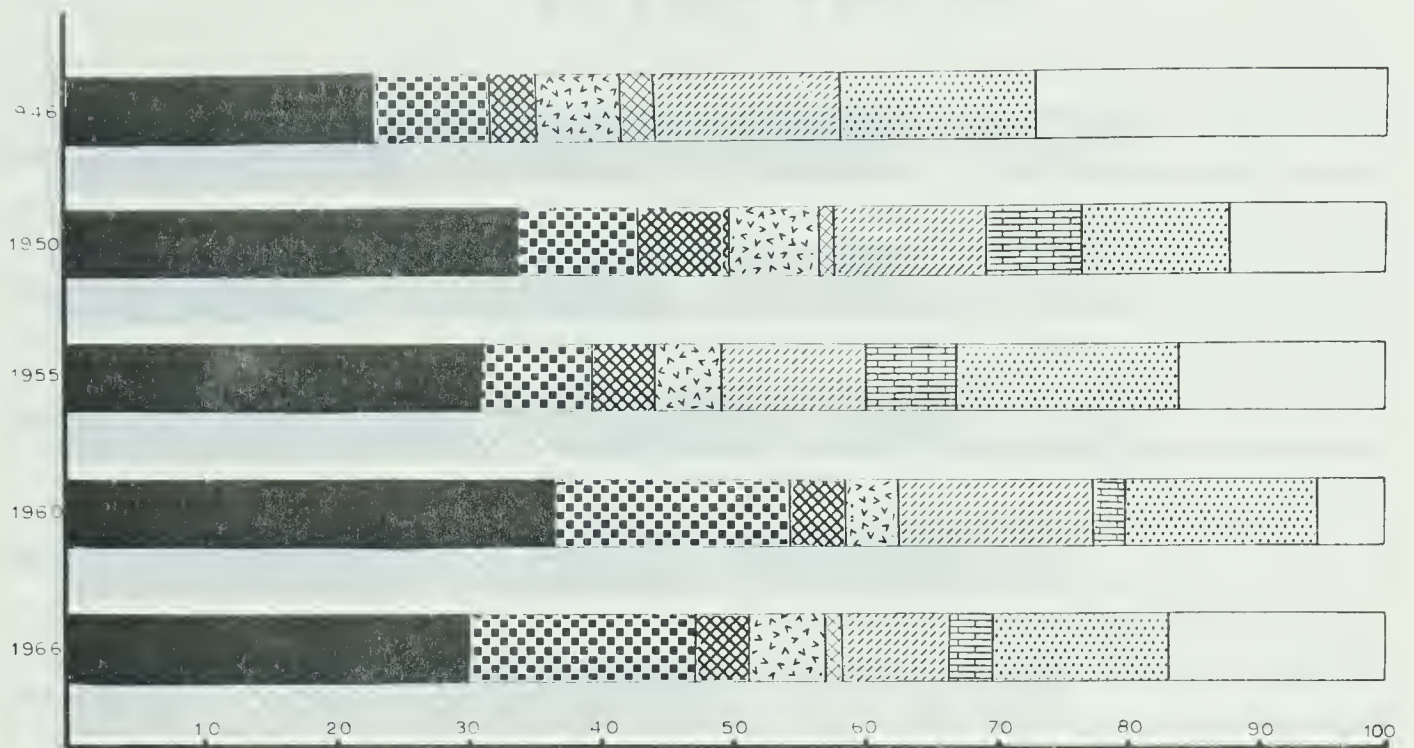


FIG. 10 - AREA No. 5

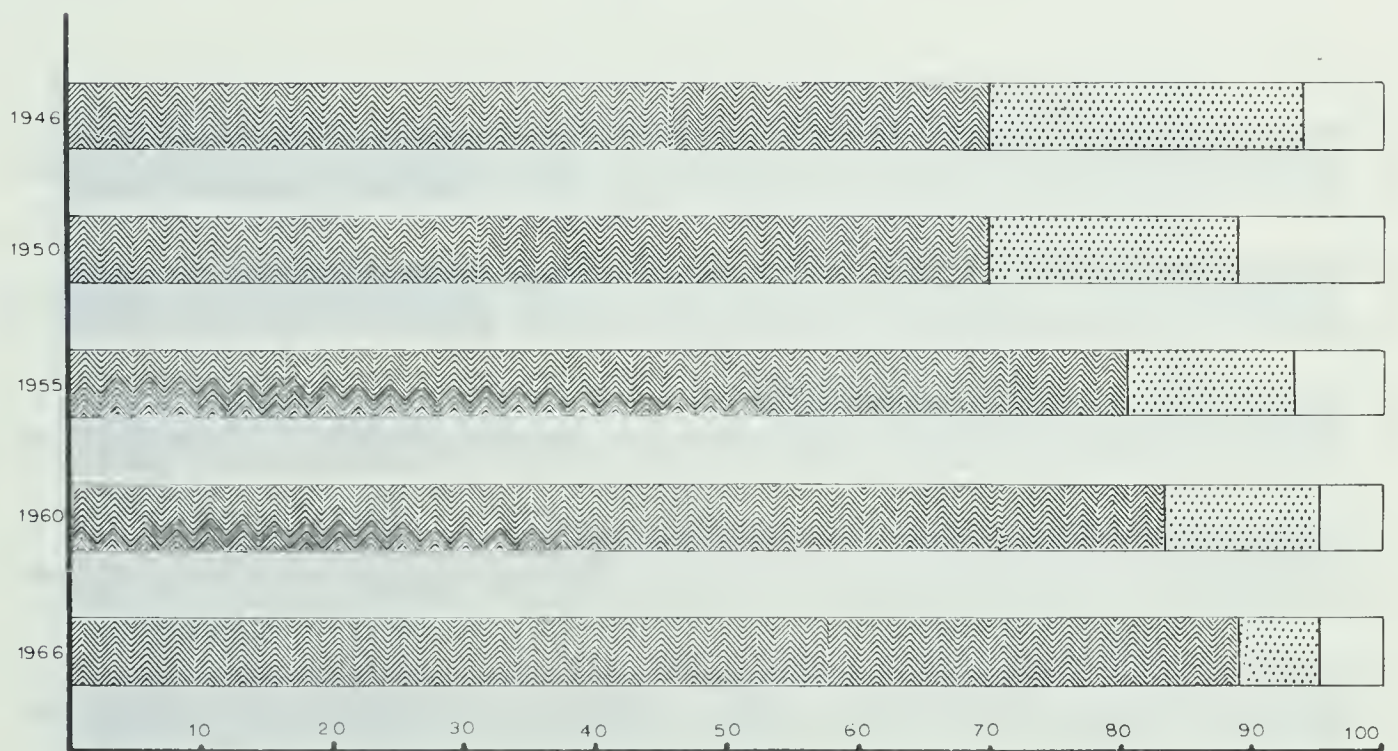
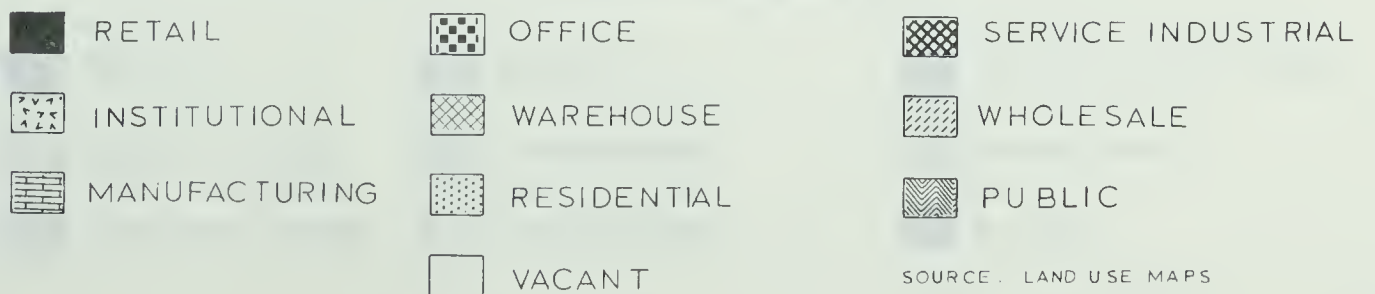


FIG. 11 - AREA No. 6







# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

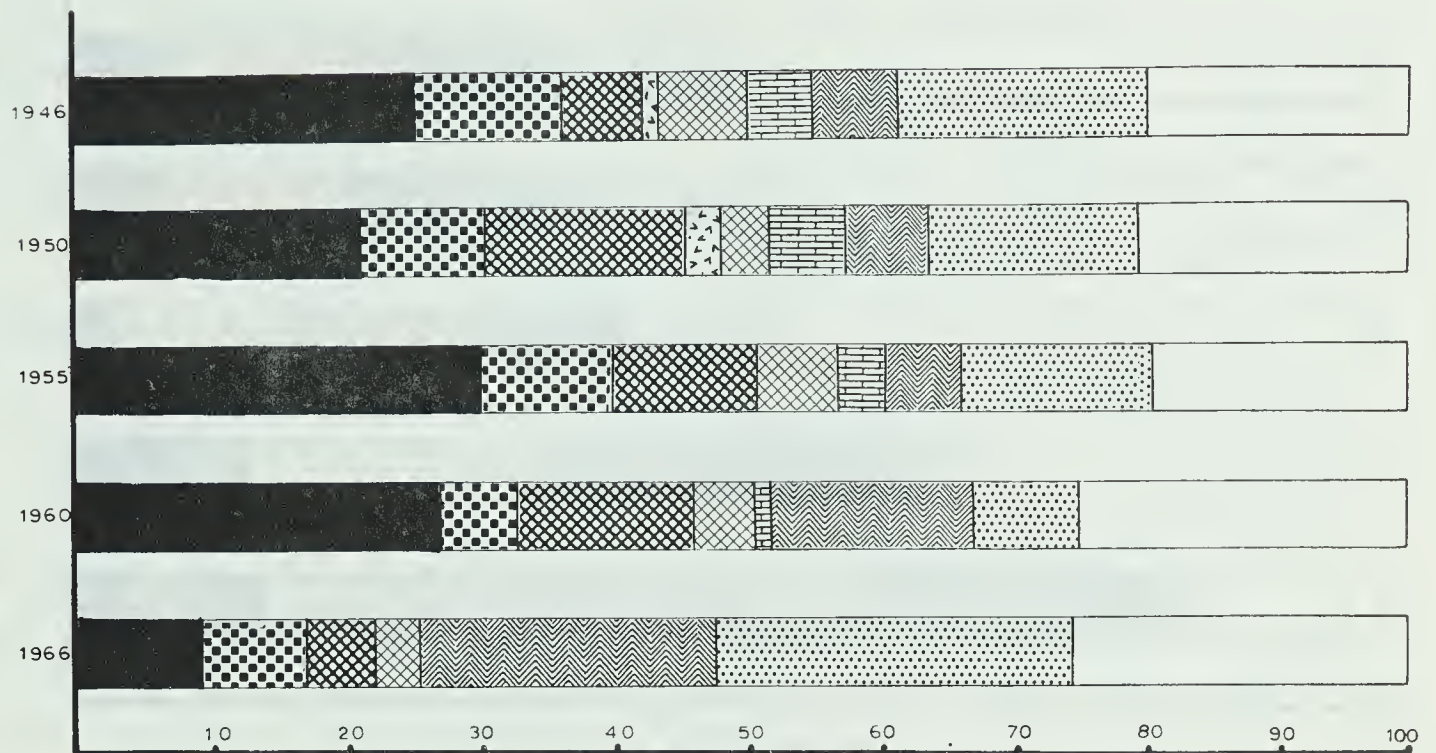


FIG. 12 - AREA No. 7

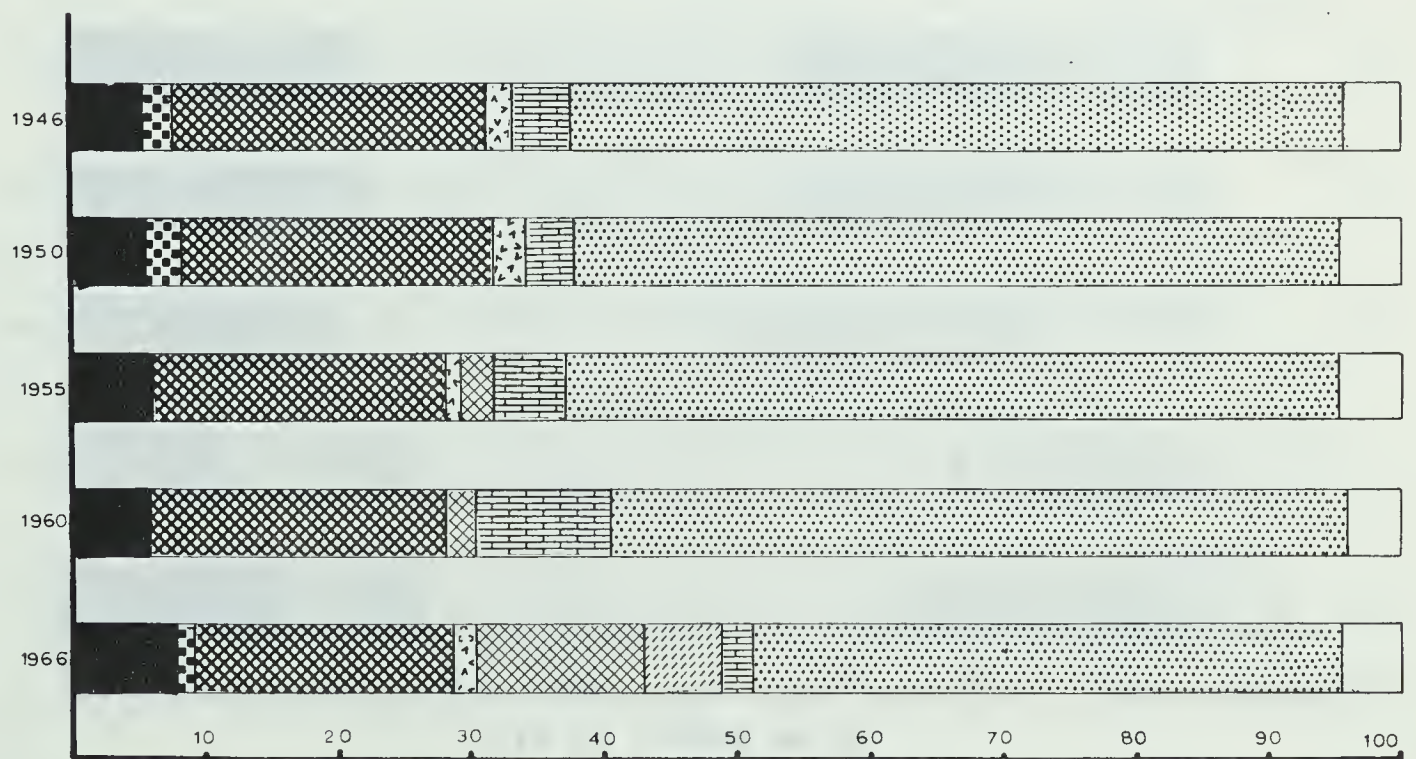
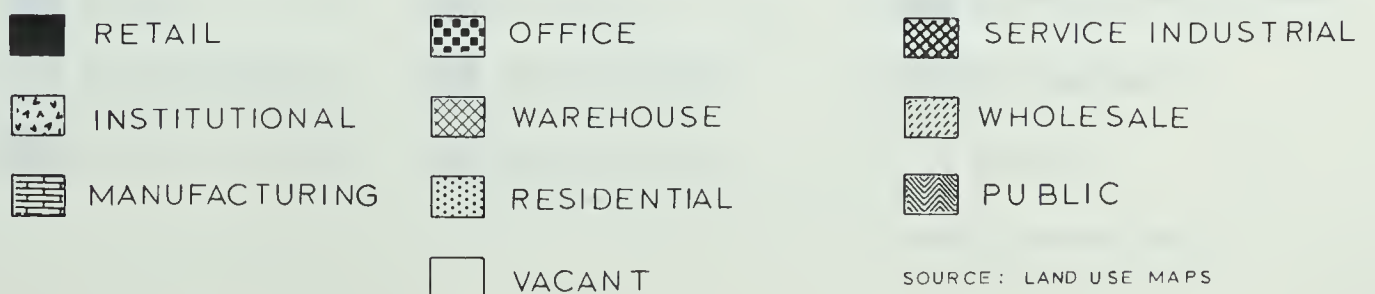


FIG. 13 - AREA No. 8



SOURCE: LAND USE MAPS





# PERCENTAGE OF TOTAL FLOOR SPACE OCCUPIED BY EACH FUNCTION

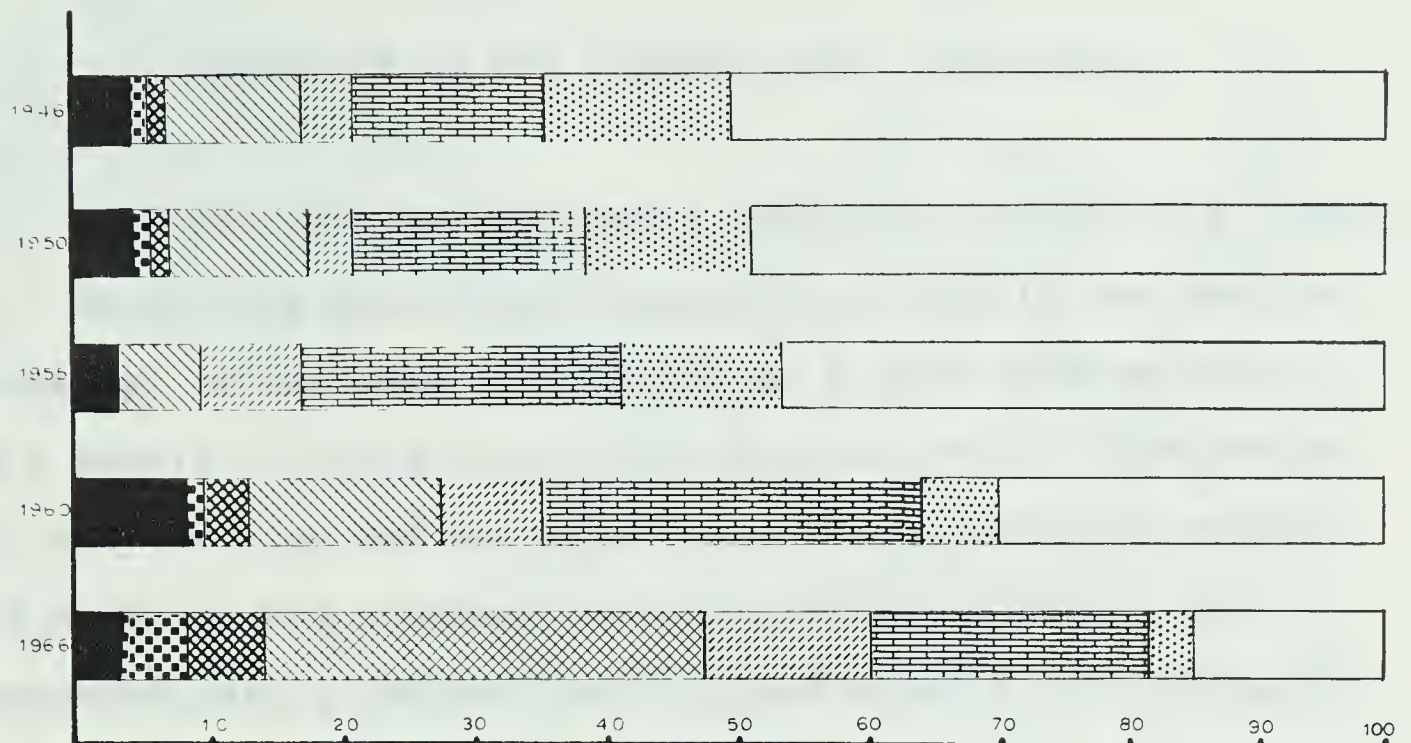


FIG. 14 - AREA No. 9

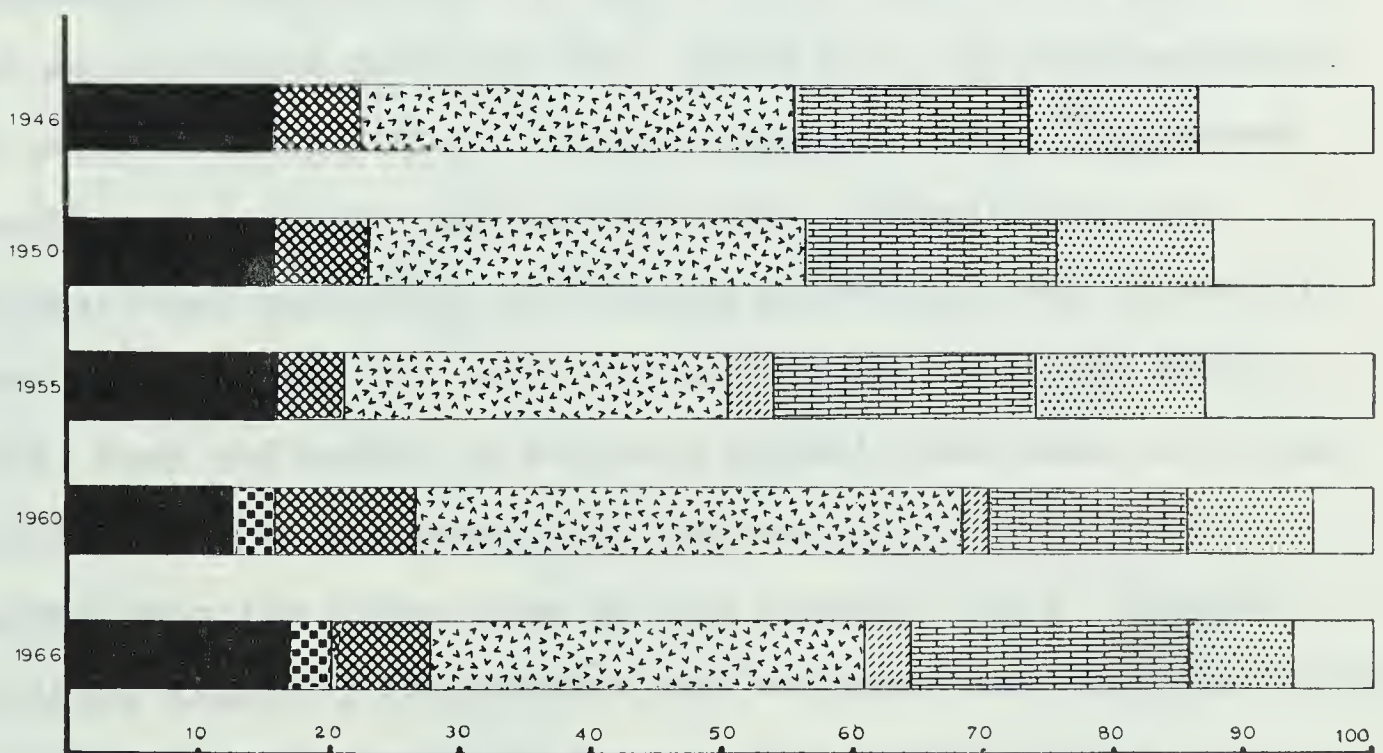
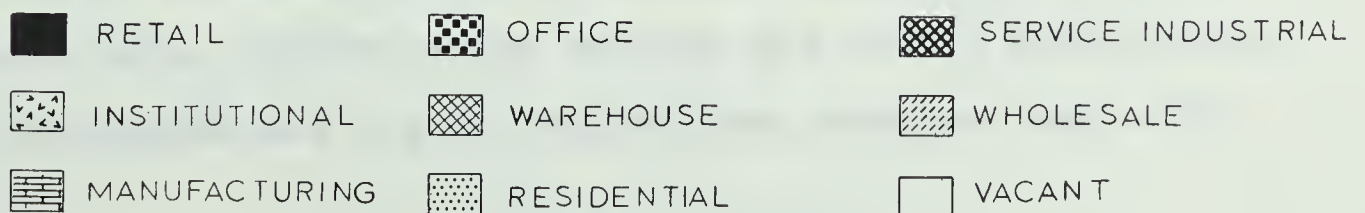


FIG. 15 - AREA No. 10



SOURCE: LAND USE MAPS.



## CHAPTER III

### EVOLUTION OF THE CENTRAL AREA, 1946-1950.

In 1946 Edmonton had a population of 113,116 (Table I). Though the growth rate during World War II had been increasing, it was soon to increase at a much greater rate as a result of large scale post war immigration from Europe. In 1946 the city had not experienced this influx of people and although the economy, especially manufacturing, had prospered during the war years it was about to be radically transformed. The economy was changed by greatly increased population, the end of war time restrictions, more demand for agricultural products and, above all, by the discovery of large reserves of oil in the Edmonton area. Increased wealth and leisure time quickly drew attention to the recreational potential of Alberta, which also was to benefit the city. Commercial activity within the city had not in 1946, been subjected to any such stimuli and most of it was located in the old commercial centre which was little larger than the floor area of the present C.B.D. Planned outlying shopping centres were non existent and only the strip-commercial activity on 82 Avenue, the former centre of the village of Strathcona, offered major competition to the central area. Office space outside the central area had not been developed and a site near railway stations was still





# THE CENTRAL AREA OF EDMONTON.







preferred for most wholesale, warehouse and manufacturing uses. Since the major railway stations were in the central area a large percentage of these uses congregated there also. Even service industries such as hotels found proximity to the railway stations an advantage as evidenced by the number of hotels north of 102 Avenue.

#### LAND USE PATTERN - 1946

As a result the central area had been the most favoured location for most commercial and associated activities before 1946. The unique advantages of central area location had led to an intensity and a variety of development unrivalled in any other part of the city. By 1946 the distribution of land uses for the area defined in Chapter I (Map 2) was as it is shown on Map 4 while floor space used by each function is shown in Table VII.

TABLE VII - FLOOR SPACE OCCUPIED BY EACH FUNCTION - 1946

Function	C.B.D. *	Per-centage in C.B.D.	Frame *	Per-centage in Frame	Central Area*
Retail	1,691,715	67.1	830,300	32.9	2,522,015
Office	1,161,290	70.1	495,000	29.9	1,656,290
Service Industry	764,970	53.9	653,750	46.1	1,418,720
Institutional	205,570	41.8	286,000	58.2	491,570
Warehouse	28,000	3.7	726,500	96.3	754,500
Wholesale	108,000	12.0	793,950	88.0	901,950
Manufacturing	219,000	29.4	525,400	70.6	744,400
Public	178,500	28.6	444,800	71.4	623,300
Residential	692,550	30.6	1,568,200	69.4	2,260,750
Vacant	450,000	22.5	1,550,000	77.5	2,000,000
Total	5,499,595	41.1	7,823,900	58.9	13,373,495

Source: Compiled from Map 4 with the aid of Fire Insurance Maps.

\*Area in square feet.



The major space consuming functions of the C.B.D. were retail, office and service industrial uses which together used 66 per cent of the total C.B.D. floor space (Figure 4). These uses were mostly concentrated in Areas No. 1 and 2 of the C.B.D. where they accounted for close to 80 per cent of the total floor space (Figures 6 and 7). In area No. 3 residential uses consumed 26 per cent of the floor space while C.B.D. functions only used 52 per cent of available space.

In the frame residential and vacant uses were by far the greatest consumers of floor space. This importance of non central area uses indicates that in 1946 there was little pressure for land in the frame and that the frame had not extended out to its present limits. Besides these uses, the frame in 1946 contained nodes of wholesale, manufacturing and public uses. Considerable space was also devoted to C.B.D. functions.

Retail uses consumed the greatest amount of space in the central area (19 per cent). They accounted for 30 per cent of the floor area of the C.B.D. but only 10 per cent of the frame. A large amount of this 912,000 square feet or 36 per cent was in Area No. 2 in the C.B.D. (See Map 2 and Figure 7). This area contained the greatest concentration of retail uses and these had excluded major development of other activities. Considerable amounts of retailing were also found in Areas No. 1 and 3 in the C.B.D. Areas No. 7 and 5 contained most of the retail activity in the frame.





Residential use also covered a large area. While some of this was scattered throughout the C.B.D. most of it was located in the frame, especially east of the C.B.D. in Area No. 8 (see Figure 13). Large amounts of residential development were scattered throughout most parts of the frame. This indicates that a considerable area which is now part of the frame has been converted to frame uses since 1946.

The development of office uses accounted for 13 per cent of the floor space in the Central area and 21 per cent of C.B.D. Most of this was in the eastern portion of the C.B.D. (see Figure 6) where a number of banks, financial companies and stockbrokers offices had been established. These were centred on Jasper Avenue from 100 Street to 101 Street. Some office development was scattered throughout the rest of the C.B.D. but within the frame there was little development of office uses. Most of the office development that had established itself in the frame was confined to the area east of the C.B.D.

Service industrial uses occupied slightly more space in the C.B.D. than in the frame. These were scattered throughout almost all of the central area. Hotels constituted a major proportion of this category, especially in the frame where cheap transient accommodation was in abundance. In the C.B.D. hotels were a major component of the service industrial function but a wide variety of restaurants, hair-dressing and photographic studios also used a large amount of floor space.



While institutional uses were found all over the central area wholesale, warehouse and manufacturing uses were concentrated in Areas No. 4 and 9 (See Figures 9 and 14). These two Areas on either side of the Canadian National Railway were well served by railway spur lines and consequently attracted those uses which needed proximity to the lines of communication and also to the C.B.D. where goods were retailed. In Area No. 4 these uses occupied 45 per cent of the floor space (Figure 9) and 28 per cent of the floor space of Area No. 9 where most of the space was vacant in 1946 (Figure 14).

Public uses were almost all confined to the southern part of the frame (Figure 11) where the Provincial government buildings were located. This concentration gave rise to the only mono-functional area in either the frame or C.B.D. with 72 per cent of the total floor space used by government functions.

In all, some 2,000,000 square feet of central area floor space was not being used in 1946 and has been classified as vacant. 77.5 per cent of this was in the frame. The greatest concentration of vacant space was in Area No. 9, to the north of the Canadian National Railway where 51 per cent of the total floor space was vacant. Much of this resulted from the continuing inconvenience of proximity to both industry and railway yards which were not compatible with residential uses.





Such was the land use pattern of this part of Edmonton in 1946. This pattern was the result of the historical, geographical, political and economic forces which have shaped the city and which were to continue to influence future developments. It was a response in both design and function to changes in the economy, which upset the ecological balance and equilibrium of forces upon which the pattern rests. The centre had grown from its original nucleus as the centre of village and town to become the heart of a large city. The development of the central area had been strongly supported by its position at the hub of all roads leading out to the country and by the location of two major railway stations and government centres within its limits.

The 1946 pattern had been the result of a westward shift of commercial activity from east of 100 Street to the area adjacent to 101 Street. The presence of the government centre to the southwest and the lack of regularity or adequate width of city blocks adjacent to the eastern portion of Jasper Avenue may have encouraged commercial enterprises to move westward. Both the better residential districts of the city and the University of Alberta had access ways leading to the west rather than the east of the central area and these could have encouraged a westward shift of activities. This westward shift may also be explained by the sale of lots in the Hudson's Bay Reserve after 1885 which left a large open space to the west of the commercial centre. One city realtor felt that the move was also conditioned by the more



pleasing environment to the west and he noted the general tendency for North American cities to develop westward rather than eastward.<sup>1</sup> He felt that this was conditioned by the mentality of settlers to whom moving forward meant moving west and moving back was equated with moving eastward again. Perhaps, an equally strong factor in the case of Edmonton was the existence of areas of industrial activity east of the central area.

Some, and perhaps all, of these forces helped establish the form of development which extended along Jasper Avenue from 95 Street to 118 Street. As the central area functions moved westward the eastern part of the frame became a sector of "passive assimilation" where the composition of the area had been modified significantly through piecemeal conversion to activities of a lower order.<sup>2</sup> To the west lay the zone of "active assimilation" where non-residential uses were invading areas of older but better quality residences.<sup>3</sup>

The forces discussed above have moulded the shape of the central area of Edmonton and have brought about both the location and arrangement of land uses seen in the discussion of the 1946 land use pattern. The importance of these forces can be seen from the location of existing buildings. To permit a better understanding of the form of the pattern

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<sup>1</sup> Personal communication with Mr. Kellough, Kellough's Real Estate Ltd., Edmonton.

<sup>2</sup> R. E. Preston and D. W. Griffin, "A Restatement of the "Transition Zone Concept", Annals, A.A.G., Vol. 56, 1966, pages 346-8.

<sup>3</sup> Loc. cit.





discussed above, a review of the age and location of buildings follows.

#### AGE OF BUILDINGS

Map 3 gives a picture of the age of buildings presently existing in the central area. Ages on this map refer to age for assessment purposes and in some cases this is not the same as the actual date of construction. This map shows all the construction within the central area since 1946. From field survey, interviews and a study of surrounding structures it was established that in no case has recent construction replaced other buildings constructed since 1946. In almost all cases, in fact, pre World War I residential structures have been removed to create sites for new office towers or hotels. As a result it is possible to establish a clear picture of the age of buildings at the commencement of the study period. The majority of extant structures had been built before 1915.<sup>4</sup> This was especially true of residential development in many parts of the frame including the eastern zone of "passive assimilation". Many of the retail and service premises on Jasper Avenue and the adjoining blocks also date from this period. Another spate of construction dates from the later 1920's. By this time many of the existing office buildings and department stores had been erected. During this period the Queen's Avenue

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<sup>4</sup> This and all subsequent statements of age of buildings are derived from Map 3.



High School at 105A Avenue and 100 Street, the Canadian Legion Hall at 100 Street and 100 Avenue and the workshop of the Commercial Printers at 109 Street and Jasper Avenue are typical of the diversity of construction which was under way.

During the 1930's and up to 1946 the lack of capital and war-time emergencies kept construction at a minimum. However, two of the major department stores were erected just before the commencement of World War II. In 1946 only five new buildings were erected in the central area and these were neither elaborate nor in excess of three storeys. In 1946 the three major office buildings, the Tegler, McLeod and Birks building were 35, 33 and 15 years old respectively. None of these were in excess of ten floors and this left the McLeod building the tallest in the central area.

Between 1946 and 1950 the pace of construction quickened throughout the city and the value of building permits increased from \$15,000,000. to \$45,000,000. in 1950.<sup>5</sup> Within the central area the new bus depot, the major portion of Alberta College and the MacDonald Hotel extension are representation of both the scale and diversity of investment in the central area. West of 109 Street on Jasper Avenue many automobile sheds were being constructed and in the northern sections of the frame many warehouse and manu-

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<sup>5</sup> Personal Communication with City Architects Dept.





facturing companies were setting themselves up in new premises.

In 1946 retail use was confined to the ground floors of buildings while usually office space or residential use occupied the upper floors. Though two new department stores were erected before World War II investment in retail structures was, between 1946 and 1950, confined to automobile sales sheds and similar low investment structures mostly in the frame area. The construction of these new automobile sales sheds as well as wholesale or warehouse structures demanded the demolition of large areas of residential development. As a result large areas of non central area uses were being replaced by C.B.D. and frame type uses.

#### LAND USE AND FLOOR AREA CHANGES, 1946-1950

Between 1946 and 1950 the population of the city increased by 24 percent and one result of this was a great expansion of construction activity. This also helped bring about many changes in the distribution and area devoted to various functions in the central area. Floor area of functions in the central area increased by 2.9 per cent (Table III). Most of this increase was the result of expansion of the office and service functions in the C.B.D. and a 50.9 per cent increase of wholesale uses



in the frame. Floor area in the C.B.D. increased by 5.3 per cent (Table IV), especially in response to a 44.2 per cent increase in service industrial uses. All C.B.D. functions increased in the C.B.D. though the increase in retail was very slight. Floor space in the frame only increased by 2.0 per cent which resulted from the 50.9 per cent growth of wholesaling and a considerable development of retail and office uses (Table V).

To gain a better understanding of these changes, each function will be analyzed in turn. Retail uses increased by 6.0 per cent in the central area over this period, but Figure 3 shows that their relative importance in the area remained unchanged as a result of expansion of other functions. Within the C.B.D. on the other hand, growth of the area devoted to retail use was only by 0.4 per cent and its proportion of space actually decreased more than 1 per cent. Table V shows that retail floor space in the frame increased by 17.5 per cent, but its proportion of floor space changed little (Figure 5). Most of this expansion took place in Area no. 5, the area of commercial ribbon development on the west end of Jasper Avenue (Figure 10). Here large space consuming automobile premises were being established. The same cause had led to the increasing importance of retail uses in the western part of the C.B.D. (Figure 8). Table VI permits a much closer analysis of differential rates of change amongst retail uses. It also brings out those parts of the central area in which change





was most pronounced. Food stores of all types declined within the C.B.D. from thirty-nine to twenty-seven while only grocery stores did not decline within the frame. This reflects the growth of convenience goods shops in outlying districts and indicates the decreasing importance of the central area for routine shopping of this nature. Since the frame still had large areas of residential use in 1950 it was less affected than the C.B.D.

Apparel groups maintained their numerical strength over this period and appliance goods stores increased in number in the C.B.D. This reflects the need for comparative shopping for such things as ready-to-wear clothing and an increasing market in post war years for all types of appliance goods. The group listed as "general retail uses" saw little change within the C.B.D. but did experience some growth in the frame. Furniture stores increased within the C.B.D. in response to high post war demand. Automobile sales, gas and automotive parts outlets increased by over 50 per cent in both the C.B.D. and the frame. Most of this increase occurred in Areas No.5 and No. 10 in the frame, which are examples of commercial ribbon development. These uses also increased within the C.B.D. but at its periphery, as in Area No. 3 (Figure 8). The decreasing number of outlets selling automotive parts reflects a tendency toward integration of these with car sales outlets.

This discussion shows that both parts of the central



area were losing some retail uses, but the floor area devoted to the function increased as a result of the expansion of types of retail uses demanding large amounts of floor space .

Office uses showed only a slight increase in the proportion of space devoted to them in the central area but in the C.B.D. they increased by 2 per cent and were clearly the second largest space user there is (Figure 4). In actual area this function increased by 13.9 per cent in the central area, 9.8 per cent in the C.B.D. and 13.1 per cent in the frame (Tables III, IV and V). A comparison of Maps 4 and 5 reveals little indication of this change since it resulted from crowding into existing buildings rather than major construction of new office towers. The increase in floor space used by office functions was absorbed throughout the area as a whole; no one sub-region gained a disproportionate share of the increase. The frame, during this period, proved to be as important a location for new offices as the C.B.D.

Table VI gives an insight into the changes in the number of professional offices in the central area. All types of medical offices increased substantially in the C.B.D. but they did not tend to locate in the frame. These, like "other professionals" who became more numerous, crowded into existing buildings or utilized upper floors of retail outlets. The increase of this group was in response to the growth of the city and a larger clientele.





At this time the first groups of post-war university students were graduating, thus ensuring an increased supply of professional people.

As might be expected in a fast growing city, all types of financial enterprises, from banks to loan companies, were becoming more numerous in both the C.B.D. and the frame. So too, were real estate dealers and manufacturing agents, who showed a rapid numerical increase in the wholesale area of the frame.

Although the proportionate importance of office uses changed little, the actual increases in both area and numbers of some groups reflect considerable changes within the function and its growing importance.

Service industrial uses were changing in both parts of the central area and this can be seen by comparing Maps 4 and 5. In actual floor space this function increased by 29.1 per cent in the central area. Most of this was in the C.B.D. which showed a gain of 44.1 per cent as compared with only 3.9 per cent in the frame (Tables III, IV and V). This is reflected in a proportionate gain of 3 per cent in the central area (Figure 3), and 5 per cent in the C.B.D. (Figure 4). This increase was concentrated in Areas No. 1 and No. 2 of the C.B.D. and the adjacent parts of the frame (Figures 6, 7 and 12).

To understand the causes of this growth it is necessary to analyze the "service industry" categories of Table VI. Most of these categories experienced a numerical



decline over this period. This decline reflects the growing popularity of neighbourhood services such as cafes, cleaning and hairdressing establishments. These suffered most in the C.B.D. where land uses, property values and functional linkages are least conducive to convenience services. Within the frame, the proximity of a large resident population and lower rentals encouraged an increase of these service uses.

A breakdown of the figures upon which Table VIII is based reveals that within the C.B.D. all types of service uses except hotels suffered a decline in area. Had it not been for the construction of the MacDonald Hotel extension the area devoted to service uses would have shown an absolute decline and reflect the trend indicated in Table VI.

These facts reveal the sensitivity of service industrial uses to changes in the attitudes of consumers. This group was more quickly and more severely affected by the growing tendency towards neighbourhood shopping and consequently they were the first to respond on such a large scale to the demand for decentralization.

Institutional uses declined slightly in both the C.B.D. and the frame but did not significantly alter either their importance or their distribution.

Wholesale uses, as can be seen on Maps 4 and 5, remained largely confined to Area No. 4 of the central area. Wholesale uses in the C.B.D. scarcely changed from 1946 but in the frame they increased in area by 50.9 per cent (Tables IV and V). This led to the increasing importance of





the wholesale function as a space consumer in the frame and particularly in Area No. 4, where it accounted for 22 per cent of the floor space in 1946 and 27 per cent in 1950 (Figure 9). The trends shown for the wholesale function in Table VI concur with these findings. Many of the wholesale groups, i.e. fruit, declined within the C.B.D. but increased numerically in the frame. Here space was more abundant, land values were not as high and pedestrian traffic was, in the frame, less of a nuisance for these firms.

However, even though the frame was attracting some wholesale firms out of, or in preference to, the C.B.D. many wholesalers found it an advantage to avoid the central area completely. In 1946 80 per cent of the wholesale grocery outlets were in the central area; by 1950 this proportion was reduced to 50 per cent.<sup>6</sup> Only those firms which had large amounts of their business in the C.B.D. could gain advantage from a frame location. Those firms that moved into the wholesale area in this period tended to replace residential development, and thus lead to a somewhat more mono-functional area.

Warehouse uses declined by 28.5 per cent in the central area and by over half in the C.B.D. (Tables III and IV). In the frame they declined in area by 27.3 per cent (Table V). As might be expected the proportion of warehouse

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<sup>6</sup> City Telephone Directories - Yellow Pages, 1946 and 1950.



space in these areas declined also (Figures 3, 4 and 5). In most sub-areas also, warehousing declined in proportion to other uses except in Area No. 4, the wholesale district, where it increased by 0.5 per cent. This evidence of a general decline in area conflicts with the considerable numerical increase in the frame of moving companies (Table VI). This discrepancy may be explained by the fact that many of these moving companies were small businesses with a small office in the area, or else the owner lived in the area and was simply recorded as an individual resident in the Street Directories. At all events the high cost of land, the difficulties of access resulting from heavy through traffic, and the availability of ample space in other parts of the city led to a decline of warehousing in the centre.

Manufacturing uses increased by 9.1 per cent in the central area but declined in the frame. This increase, then, was confined to the C.B.D. and was accounted for by a 100,000 square foot addition to the plant of Silverwood's Dairy at 109 Street. This did not change significantly the relative unimportance of manufacturing in the C.B.D. In the frame some decline occurred in the relative importance of manufacturing due to the removal of a milling company from the wholesale district (Figure 9). As in the case of warehousing this area was losing whatever locational advantages it once had as a centre for manufacturing uses.

Residential uses declined sharply in the whole area; by 14.1 per cent in the central area and 33.0 per cent





in the C.B.D. but only by 5.7 per cent in the frame (Tables III, IV and V). Its proportionate importance as a space user declined in all three areas also. As already shown, other functions expended their areas largely at the expense of former high quality residences. This was true of the expansion of the retail, office and wholesale functions (Figures 6, 7, 8 and 10).

In all parts of the central area non-central area uses, such as residential, could ill afford the rents demanded and so were sold to commercial developers. As well, many of the houses dated to the beginning of this century and were becoming obsolete in both location and quality. The infringement on residential space reflects the growing consolidation of the C.B.D. and the outward growth of the frame towards its present limits.

Public uses showed little change in the central area for this period. For convenience of classification bus depots are included in this group and this caused some expansion in the C.B.D. in 1947, where the Union Bus Depot was built.

Vacant space decreased in all areas as a result of the expansion of automobile sales in many areas of the C.B.D. and frame. The amount of vacant space was also decreasing as a result of expansion of other functions.



## LAND USE PATTERN, 1950

TABLE VIII - FLOOR SPACE OCCUPIED BY EACH FUNCTION - 1950

Function	C.B.D.*	Per- centage in C.B.D.	Frame*	Per- centage in Frame	Central Area *
Retail	1,698,735	63.5	975,700	36.5	2,674,435
Office	1,327,215	70.3	559,750	29.7	1,886,965
Service Industry	1,102,530	70.0	471,350	30.0	1,573,880
Institutional	202,050	42.6	272,600	37.4	474,650
Warehouse	11,325	2.1	528,500	97.9	593,825
Wholesale	108,500	8.3	1,198,400	91.7	1,306,900
Manufacturing	311,050	38.3	500,900	61.7	811,950
Public	191,900	28.8	452,800	71.2	664,700
Residential	464,150	23.8	1,478,200	76.2	1,942,350
Vacant	375,000	19.5	1,540,000	80.5	1,915,000
Total	5,792,455	42.0	7,978,200	58.0	13,770,665

Source: Compiled from Map 5 with the aid of the Fire Insurance Maps.

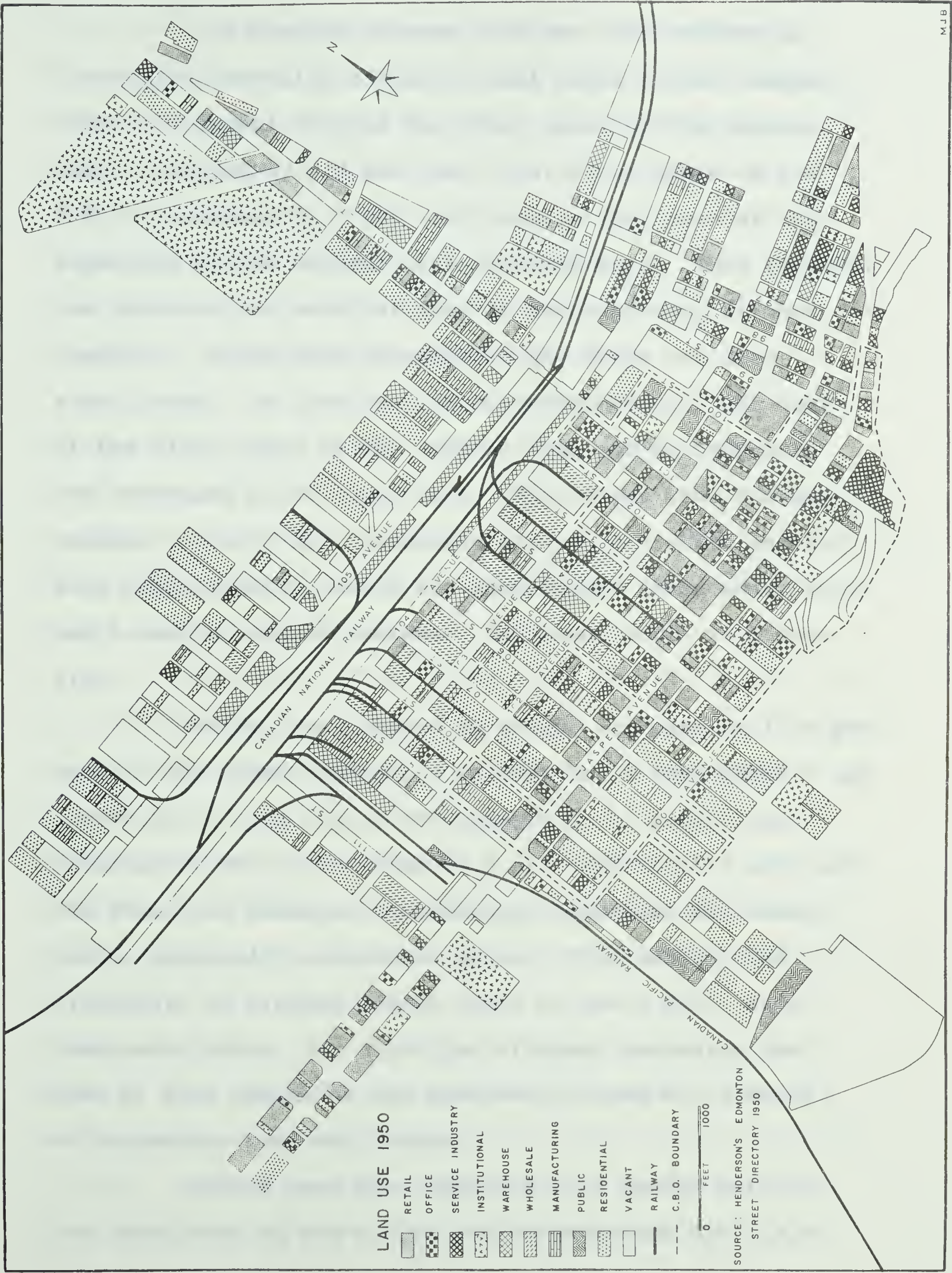
\*Area in square feet.

The preceding pages describe the changes in both relative and actual importance of each function in the central area. Some mention was also made of changing patterns of location. But these changes in location had not brought about a major alteration of the land use pattern by 1950. Rather they had modified the pre-existing pattern and had further developed the functional areas which were already being formed in 1946. For example, the increase in wholesale use occurred in Area No. 4, where many wholesale firms had been long established. This increase strengthened the mono-functional nature of this area, but its land use pattern was still essentially the same.





# THE CENTRAL AREA OF EDMONTON .







The changes between 1946 and 1950 reflect an increasing intensity of use in most parts of the central area. In actual figures the floor space of the central area increased by 2.9 per cent. But floor space in the C.B.D. increased by 5 per cent showing that much of the expansion of the central area occurred here. This reflects the construction work outlined at the beginning of this Chapter. Floor area increase in the frame was less significant. In 1946 the C.B.D. contained 41.3 per cent of the floor space of the central area and in 1950 this was increased to 42.0 per cent. This shows that the expansion in the C.B.D. increased its proportionate importance only slightly, while the much larger frame area, which had a smaller actual increase, declined little in proportion.

Retail uses showed an actual increase of 17.5 per cent in the frame especially in Area No. 5 (See Table V and Figure 10). As a result the proportion of retail uses declined in the C.B.D. from 67.0 per cent to 63.5 per cent. The frame was becoming increasingly important for retail sales, especially automobile sales. This reflect the difficulty of finding enough space in the C.B.D., at a reasonable price, for this type of space consuming use. Most of this expansion was absorbed in Area No. 5 where an "automobile row" was forming.

Office uses also expanded at a faster rate in the frame than in the C.B.D. but nevertheless the C.B.D.





still held 70 per cent of the function, largely in Area No. 1 (Figure 6). The service industrial function underwent the greatest change in both actual and proportional significance. An increase of almost 30 per cent in the central area was practically all confined to the C.B.D. which resulted from hotel construction in Area No. 1. As a result 70 per cent of the service function was located in the C.B.D. in 1950 as compared to 50 per cent in 1946.

The net result was a growth of C.B.D. functions in all parts of the C.B.D. and in some adjacent parts of the frame. With the expansion of the service industrial uses the importance of the C.B.D. as a centre of C.B.D. functions was greatly increased despite the increase in the area of retail uses in the frame.

Wholesale and warehouse uses declined in the C.B.D. but wholesaling expanded greatly in the frame and consequently in the whole central area. As a result the proportions of these uses in the C.B.D. declined by 9.1 and 21.1 per cent respectively. Almost all of the increase was absorbed in Area No. 4 (Figure 9). Manufacturing uses increased in actual area in the C.B.D. but declined in the frame (Tables IV and V). This expansion in the C.B.D. occurred at 109 Street and Jasper Avenue where Silverwood's Dairy was enlarged. As a result the proportion of manufacturing uses in the C.B.D. increased from 29.4 per cent to 38.3 per cent in 1950. Since the actual area involved is rather small, this does not indicate a significant increase in the



importance of the C.B.D. as a manufacturing centre.

Perhaps residential uses were undergoing the most dramatic change at this time. As was shown above, the expansion of any central area function usually took place at the expense of residential uses. As a result the space devoted to residences in the central area declined 14.1 per cent, 33 per cent in the C.B.D. and 5.7 per cent in the frame. This decline occurred mostly in the western part of the C.B.D., (Figure 8), where both C.B.D. and frame uses had increased. The increase of C.B.D. functions would indicate the expansion of the C.B.D. out toward its present limits. As might be expected the proportionate significance of residential use was also declining. In 1946 it was by far the second largest function in the central area. In 1950, although it was still second, the area devoted to office and service industrial uses was almost as great. Figure 3 shows that its importance in the central area and the C.B.D. decreased by almost 1 per cent per year. The C.B.D. now contained 23.8 per cent of residential function compared to 30.6 per cent in 1946 (Figure 4). This decrease of a non-central area use reflects the growing pressure for land in the frame.

Lastly, vacant space decreased in the C.B.D. for the same reason, especially in Area No. 3 (Figure 8), where automobile sales facilities and show rooms used up some of the available open space.

The net result was a significant growth of C.B.D.





uses in both the C.B.D. and the frame, while frame uses tended to decline in the C.B.D. and increase in the frame. These two types of expansion took place at the expense of residential and vacant uses in the C.B.D. and at the expense of residential uses in the frame.



## CHAPTER IV

### EVOLUTION OF THE CENTRAL AREA, 1950-1955

The population increase noted prior to 1950 was continued in this period and by 1955 the population of Edmonton was 209,353.<sup>1</sup> This represented a gain of 24 per cent in five years. As well the economy of Canada had recovered from the effects of World War II and in Alberta both manufacturing and extractive industries were rapidly increasing production. Between 1948 and 1954, for example, the value of dairy products increased by 4.6 per cent, while food and beverage manufacturing increased by 46 per cent of its gross value.<sup>2</sup> After 1947 new discoveries of oil in the province had led to an intensification of exploration activity in the Edmonton area. Stimulated by these and other developments the labour force in the city continued to grow and increased by 30 per cent from 1951 to 1955.<sup>3</sup> All this activity in the province provided a major challenge to the urban areas into which most of the immigrants migrated and where they had to be provided with employment and accommodation. The increased value of building permits issued by the City

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<sup>1</sup> Civic Census for City of Edmonton, 1955

<sup>2</sup> Dominion Bureau of Statistics.

<sup>3</sup> Census of Canada, 1951 and City Estimates for 1955, a brief to the Gordon Commission.





of Edmonton reflects the pace of development within the city. In 1946 building permits were valued at only \$15,000,000.; in 1950 at \$46,500,000. and in 1955 at \$58,700,000.<sup>4</sup> The greater part of this investment was in suburban residential development and in outlying industrial centres but new construction in the city centre reflected considerable, and continued investment and confidence within this area. Map 3 shows the location of many new office towers which were erected in the C.B.D. during this period. One of these was the Baker Building at 100 Avenue and 100 Street which increased the area devoted to office space by 28,000 square feet.<sup>5</sup> This building was occupied by members of the medical profession. The new Imperial Bank Building at Jasper Avenue and 100 Street, built in 1953, added 60,000 square feet of professional and general office space. Many more of the new office structures were small walk-up buildings. During this period a new Baptist church on 109 Street and an Anglican Cathedral at 103 Street were erected within the C.B.D. In 1952 the Mayfair Hotel, built at 108 Street and Jasper Avenue, added significantly to service industrial floor space. On the other hand the amount of retail space constructed within the confines of the C.B.D., during 1950 and 1955, was very small.

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<sup>4</sup> Personal Communication, City Architects Department, Edmonton.

<sup>5</sup> All statements of age of buildings are taken from Map 3. All references to the size of these structures are derived from the Land Use Maps with the aid of the Fire Insurance Maps.



In the frame there were many notable developments. In the government centre (Area No. 6, Figure 11) a new building with 364,000 square feet of floor space was under construction in 1955. To the west, in Area No. 5, the strip commercial development on Jasper Avenue continued to attract large space using types of retail trading which demanded new buildings. At Jasper Avenue and 110 Street the first high-rise apartment in the central area, or the city, was under construction in 1955. This was the Savoy Plaza Apartment, the ground floor of which was devoted to commercial uses. In 1954 work began on the Medical Arts building at 110 Street and Jasper Avenue in close proximity to the General and Misericordia Hospitals.

In the northern part of the frame (Area No. 9), many construction companies had expanded their bases of operation north of 105 Avenue during this period. Many firms had also constructed additional warehouse space in this area, e.g. MacCoshams took half a city block for storage in 1953.

There was isolated construction both north and south of the C.B.D. while to the east work was begun in 1955 on a new City Hall at 103 Avenue and 100 Street. A new immigration office at 105A Avenue and 100 Street had been completed by then.

This brief review of building activity shows the prime concern with construction of new office space. Auto





sales sheds represented the major expansion of retail uses and they were confined to the frame. The Savoy Plaza Apartments represented the only residential construction in the central area. As compared to the 1946-1950 development this construction indicates a healthy resurgence of interest in the heart of a fast expanding city.

#### LAND USE AND FLOOR AREA CHANGES, 1950-1955

The construction work outlined above and the general changes in the economic standing of both the province and the city are reflected in considerable movements and shifts in the distribution of land uses in the central area (Map 6). Since form is a reflection of function, and since new forms were springing up in a great variety of locations peripheral to the established functional zones, it is clear that functional shifts or movements were taking place.

From 1950 to 1955 the total floor space in the central area increased by 4.7 per cent, while in the C.B.D. there was an increase of 4.2 per cent and over 5 per cent in the frame (Tables III, IV and V). This expansion of total floor area reflects the growth of all C.B.D. functions and also the large expansion of government offices. To determine when the expansion was most pronounced an analysis of each function was necessary.

Retail space increased by 7.8 . per cent in the central



area, 17.3 per cent in the frame, but only by 2.3 per cent in the C.B.D. (Tables III, IV and V). The result of this was that 39.7 per cent of the central area retail floor space was in the frame in 1955 as compared to 36.5 per cent in 1950. This reflects the growing importance of the frame as an area of retail activity and the decreasing advantages of the C.B.D. While retail sales continued to occupy nearly 20 per cent of the floor space of the central area (Figure 3) its proportional importance decreased by 1.0 per cent in the C.B.D. (Figure 4). This decrease was confined to Areas No. 1 and No. 3 of the C.B.D. (Figures 6 and 8), where office and service functions were fast expanding. In the frame, retail floor space constituted 14 per cent of the total floor space in 1955 as compared to 11 per cent in 1946 (Figure 5). While some areas experienced a decline in the proportion of retail floor space, Area No. 7 or the Civic Centre, as well as Area No. 5, experienced the most of the expansion.

An examination of the various types of retail activity indicates more fully those which were changing most and also why they were changing. In the food group all types of outlets suffered a decline in the C.B.D. and only meat, fish and vegetable stores increased numerically in the frame. Grocery stores had the sharpest decrease of all groups; from twenty six to twenty outlets in five years. Being a prime example of convenience goods stores, they are very sensitive to any decrease in the surrounding residential density. Surprisingly it was in the frame that the rate of decline was most severe





(eighteen to thirteen). This was possibly due to the decreasing importance of residential uses in the frame and the pull of major food stores farther out in the suburbs. Meat, fish and poultry stores declined from nine to seven in the C.B.D. but increased 100 per cent in the frame (Table VI). These stores depend on slightly less frequent patronization than do grocery stores, and so many could survive in the frame close by the Farmers' Market on 99 Street and 107A Avenue, which drew a weekly throng of convenience goods shoppers.

In the apparel group all, with the exception of fur stores, had small numerical increases. However, the rate of increase was negligible as compared to the rate of increase of population in the city. The greatest increase was in menswear stores which increased from fourteen to eighteen, while fur outlets declined one in the C.B.D. and gained one in the frame. These figures are hardly indicative of any major trend, but clearly show that the C.B.D. was not declining in absolute importance for this type of retail activity.

In the category "general retail" almost all types showed an increase, especially in the C.B.D. The increase of book stores from four to eight and jewelry stores from eighteen to twenty six is indicative of a trend towards an increasing number of specialty stores within the C.B.D. Increases of this group in the frame were less uniform and less significant. Most of these stores depend on a large "threshold population" which is not available in the frame. Typical of the declining categories in this group were coal



sales, which had either ceased to be of importance altogether or else had moved closer to residential areas, and second-hand stores, which have a low rent paying ability. The decline of second-hand stores from fourteen to ten may also indicate the increasing affluence of Edmonton's society. Within this group of "general retail" many categories remained stable while the more specialized and exclusive types of stores registered considerable increases.

Furniture and appliance stores show a variety of trends (Table VI). Appliance and hardware stores increased from seventeen to twenty two in the C.B.D. and declined by one in the frame. The expansion of this group was aided by the popularity of the newly arrived luxury of television. As relatively small space consumers they could survive in the C.B.D. better than other types of outlets in this group. Furniture stores declined by four in the C.B.D. and increased by one in the frame. These extensive space users could ill afford, and indeed did not need, the high rent areas of the C.B.D. Of those that left the C.B.D., one, Sprague's Ltd., relocated in the frame at 109 Street and 100 Avenue. This new site had many advantages which induced the firm to move west ten blocks from 99 Street. These included the availability of more space, adequate parking and close proximity to important traffic routes, which led to high quality residential areas.<sup>6</sup> Sprague's business is typical of this group

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<sup>6</sup> Pers. Comm., with Mr. Sprague, Edmonton.





which can ill afford the high rents and congestion of the C.B.D. and are well served in a frame type of location.

Automobile sales are also large space consumers and likewise can ill afford a C.B.D. location. By 1955 pressure for land in the C.B.D. was intensifying and some car dealers moved to the frame, creating the beginnings of an "automobile row" on the west end of Jasper Avenue. This is reflected in Table VI which shows a decrease of three car dealers in the C.B.D. and an increase of three in the frame. Typical of these was Edmonton Motors which moved in 1951 to a frame location at 114 Street and Jasper Avenue from close by the centre of the C.B.D. Here it was possible to obtain 100,000 square feet of land in a unit with little difficulty and at a reasonable price.<sup>7</sup> The west end of Jasper Avenue was chosen because of its close proximity to the C.B.D. most of which was within a five minutes bus run. One advantage of this new location was the large volume of passing traffic.

Not all automobile dealers felt such a move was warranted before 1955. Jenner Motors found that they could afford a C.B.D. location<sup>8</sup> while Waterloo Motors chose a location at 107 Street and Jasper Avenue which was right on the boundary of the C.B.D. In the latter case space was even available for expansion.<sup>9</sup>

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<sup>7</sup> Pers. Comm., with Edmonton Motors District Manager.

<sup>8</sup> Pers. Comm., with Sales Manger, Jenner Motors, Edmonton.

<sup>9</sup> Pers. Comm., with Manger of Waterloo Motors, Edmonton.



The above analysis indicates that most types of retail uses were expanding in terms of the number of outlets. The findings concur with the overall expansion of floor space noted in Figures 3, 4 and 5. It was chiefly large space consuming uses, such as automobile sales, which caused a 17.3 per cent increase in retail floor space in the frame. Speciality stores and high quality clothing outlets in the C.B.D. increased in Area No. 2 (Figure 7), but these are not large space consumers and so did not greatly increase either the actual or the proportionate amounts of retail floor space in the C.B.D. While retail floor space increased, this increase bore no relationship to the rate of population increase in the city. This would seem to indicate that the relative importance of central area retail sales, as compared to city wide sales, was decreasing. Although no planned outlying shopping centres had been opened one was under construction in 1955. However, it is clear from the above discussion that an increasing amount of consumer goods were already being sold in shopping areas outside the central area.

Office uses continued to increase both in terms of actual floor area and also in terms of their proportion in most parts of the central area. In the central area as a whole office space increased by 10 per cent, which increased its relative importance very little as a result of comparable expansion of other functions. In the C.B.D., office space increased by 13.5 per cent and by 3.6 per cent in the frame





(Tables III, IV and V). As a result of this expansion the C.B.D. now had 72.2 per cent of the total office space of the central area as compared to 70.3 per cent in 1950 (Tables VII and VIII).

Within the C.B.D. the office function accounted for 25 per cent of the floor space in 1955 as compared to 23 per cent in 1950 (Figure 4). Expansion occurred in Areas No. 2 and No. 3 of the C.B.D. which indicates the west and southwest shift of this function. This was brought about by the construction of the Baker Clinic at 105 Street and 100 Avenue, the Farmers Union Building at 106 Street and many more small offices in the same area.

The medical group of professionals was fast expanding in the C.B.D. Physicians increased from one hundred and twenty-four to one hundred and thirty-three. Although medical offices were under construction in the frame, they were unopened in 1955 and little increase was recorded. Most of the "other professional" groups also registered an increase in the C.B.D. and many also in the frame. One significant change was the decline of architects from thirteen to five in the C.B.D. and an increase from two to ten in the frame. This reveals how little this group needs a directly central location and how many of them work in association with building firms, some of which could be found in the frame. The numbers of engineers located in the frame increase for similar reasons.

The financial group changed little in either location



or number and was firmly based in the C.B.D., with the exception of real estate and life insurance outlets. Life insurance firms declined from forty eight to forty in the C.B.D. and real estate firms from eighty eight to fifty eight. This considerable decrease reflects the need of these types of activities to have close proximity to their markets and so they were vacating the C.B.D. They did, however, increase somewhat in the frame where rents were lower and where they would be more convenient to residential markets.

These trends in the professional office group indicate the outward movement of many office functions. The drift from the centre of the C.B.D. by medical and real estate offices was also recorded in the City of Kansas between 1946 and 1950. During this period only 2 per cent of the new medical and 4.4 per cent of the new real estate and insurance offices were constructed in the C.B.D.<sup>10</sup> This reflects the need of these activities to locate close to the market and the C.B.D. has few advantages for them.

Service industrial floor space increased by 5.0 per cent in the central area and by 23.9 per cent in the frame but it actually declined 3 per cent in the C.B.D. (Tables III, IV and V). As a result service industrial uses for a

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<sup>10</sup> Fifteen Years of the Central Business District,  
Kansas City Planning Commission, 1960, page 30.





considerably larger proportion of space in the central area in 1955 than in 1950 (Figure 3).

Decrease in the C.B.D. was not uniform throughout. In the eastern part, or Area No. 1, service uses increased in importance as a result of expansion of restaurants and similar activities. But in the rest of the C.B.D. the decrease of service uses was considerable (Figures 6, 7 and 8).

Table VI helps identify those service uses which were declining most rapidly. Cafes and hairdressers continued to decrease and follow their clientele to the suburbs. Cleaning outlets had decreased in the C.B.D. before in 1950, but had increased again in 1955, from twelve to twenty two. It is difficult to explain why this trend should have been reversed. Most other types of service outlets decreased somewhat in both the C.B.D. and the frame. But the rate of decline was slightly greater in the C.B.D. than the frame, since there were decreases from one hundred and forty five to one hundred and thirty two, and from ninety nine to ninety three respectively.

The construction of the Mayfair Hotel at 108 Street and Jasper Avenue in 1952 increased the hotel function within the C.B.D. and this helped compensate for the marked decline of many of the smaller outlets. Much of the increase of service uses in the frame, as well as some of the decline in the C.B.D., result from the appearance or disappearance of some poor class hotels. This results in part from difficulties of classification in the Street Directories. Thus, a cheap hotel may be recorded as either a "hotel" or as "suites".



The overall conclusion is a declining status of service industries in the C.B.D. and an increase in the frame, chiefly resulting from an expansion of cheap hotels.

Wholesale uses increased by 69,400 square feet or 64 per cent in the C.B.D. while they declined by 11 per cent in the frame and by 4.8 per cent in the whole central area. These trends are the opposite of those recorded for wholesale uses in 1946-1950 when the frame received a substantial increase. Consequently, upon these trends, wholesale uses declined by a proportionate importance of 1 per cent in the central area, and by 2 per cent in the frame. This decrease was felt most in Area No. 5 of the frame where some decline together with an increase in other functions reduced its importance. The 64 per cent increase in the wholesale floor space in the C.B.D. was confined to Area No. 3 (Figure 8) where a large store at 104 Street and 102 Avenue was converted to wholesale uses. Most of these uses were wholesale firms without stocks.

Wholesaling with large amounts of stocks declined in the frame by 240,000 square feet as a result, largely, of the transfer of John Deere wholesale ploughs from 107 Street to the north western part of the city in 1954. This firm was able to obtain adequate space for expansion at its new location. The increasing importance of motor transportation and the increasing decentralization of retail activities left proximity to the C.B.D. of minor importance for many large space consuming types of wholesaling. On the other





hand, wholesale outlets with little or no stocks could afford a central area location and could find enough space there. These compensated in Area No. 4 (Figure 9) for the decline of larger outlets.

The numerical count in Table VI gives a true indication of the status of wholesale firms in the central area. Numerically the C.B.D. was, as might be expected, decreasing in importance as a wholesale area and the number in the frame remained unchanged indicating that its drawing power for new firms was negligible. So although some increase of wholesale uses occurred in the C.B.D. it was no indication of a major trend towards creating a wholesale area in the C.B.D.

Warehouse uses declined in all parts of the central area; by 60.3 per cent in the C.B.D. and by 1.7 per cent in the frame (Tables IV and V). As a result the significance of storage uses in the central area was reduced (see Figures 7, 9, 10 and 14). In 1955 storage uses accounted for a mere 4 per cent of central area space and less than 1 per cent of C.B.D. space (Figures 3 and 4).

Numerically, as well as in area, warehousing uses fled the central area. Seven out of fourteen moving companies relocated in peripheral areas during this period (Table VI). The causative reasons for this trend are the same as those for wholesale uses but may be even stronger on warehousing as a result of its low rent paying ability. Much of the warehouse space in the frame was composed of railway freight sheds



and most of the remainder was located in areas close to the railways which was not demanded for other uses.

Manufacturing floor space completely reversed the trends noted in Chapter III and declined in the C.B.D. by 23 per cent while increasing by 30.6 per cent in the frame. However, in 1955 this use still accounted for only 6 per cent of total central area floor space. The major area of expansion was Area No. 9 (Figure 14), in the frame where its increase meant that it consumed 7 per cent more of the floor space of this area.

The 23 per cent decrease in the C.B.D. represented a decline of 71,450 square feet. During this period the C.B.D. lost the only milling establishments located within its limits and some others of the categories in Table VI also declined.

In the frame construction companies and lumber yards were expanding north of the Canadian National Railway property. All these are large space consumers and result in increasing the floor space of manufacturing uses in the frame by 30 per cent between 1950 and 1955. As a result there was a manufacturing node in Area No. 9.

Public uses underwent little change in the central area as a whole but in Area No. 6 of the frame a new 364,000 square foot office was constructed to house governmental functions. As a result 82 per cent of Area No. 6 (Figure 6) was, in 1955, given over to the governmental functions.

Work had begun on a new City Hall at 103 Avenue and





100 Street but it was not yet complete and so did not increase the area of public uses in that part of the frame.

Residential uses declined by 18.3 per cent in the central area; 16.8 per cent in the C.B.D. and 18.8 per cent in the frame. As a result, the proportion of residential space in the central area decreased from 14 to 11 per cent. The expansion of office space in the C.B.D. was almost universally at the expense of older residences. In the frame old residences fell into disuse as a result of close proximity to noxious or noisy activities or else were displaced by them completely as in Area No. 9 (Figure 14). The expansion of the government centre was also mostly at the expense of old houses.

The rate of decline of residential uses would have been even more pronounced had it not been for the construction of a downtown high rise apartment at 110 Street and Jasper Avenue. This was the first attempt to popularize the idea of high density residential development close to the C.B.D.

Vacant space increased by only 3 per cent in the central area but by 25 per cent in the C.B.D. where large areas were cleared in advance of development or for parking purposes. Some of this space had been vacated by automobile sales groups who moved to the frame. Despite this increase only 8 per cent of the C.B.D. was vacant or unused while in the frame 17 per cent was not built upon or used for any



of the functions discussed above.

The figure 8 per cent vacant in the C.B.D. of Edmonton in 1955 compares closely with 7.5 per cent of the total floor space in the C.B.D. of Kansas in the same year.<sup>11</sup> In the frame vacant space accounted for 17 per cent of the total floor space in that area which is considerably larger than the 12.3 per cent average for the frame of the three cities examined by Preston in 1963.<sup>12</sup>

#### LAND USE PATTERN - 1955

TABLE IX - FLOOR SPACE OCCUPIED BY EACH FUNCTION - 1955

Function	C.B.D.*	% in C.B.D.	Frame*	% in Frame	Central* Area
Retail	1,737,740	60.3	1,144,450	39.7	2,882,190
Office	1,505,890	72.0	579,900	28.0	2,085,790
Service	1,069,330	64.7	583,750	35.3	1,653,080
Institutional	205,020	41.1	294,000	58.9	499,020
Warehouse	4,500	0.9	519,800	99.2	524,300
Wholesale	177,900	14.3	1,066,900	85.7	1,244,800
Manufacturing	239,500	26.8	654,050	73.2	893,550
Residential	386,050	24.3	1,201,100	75.7	1,587,050
Public	236,900	21.9	841,700	88.1	1,078,600
Vacant	472,000	23.9	1,500,000	76.1	1,972,000
Total	6,034,830	41.85	8,385,550	58.15	14,420,380

Source: Compiled from Land Use Map for 1955 (Map 6) with the aid of Fire Insurance Maps.

\* Area in square feet.

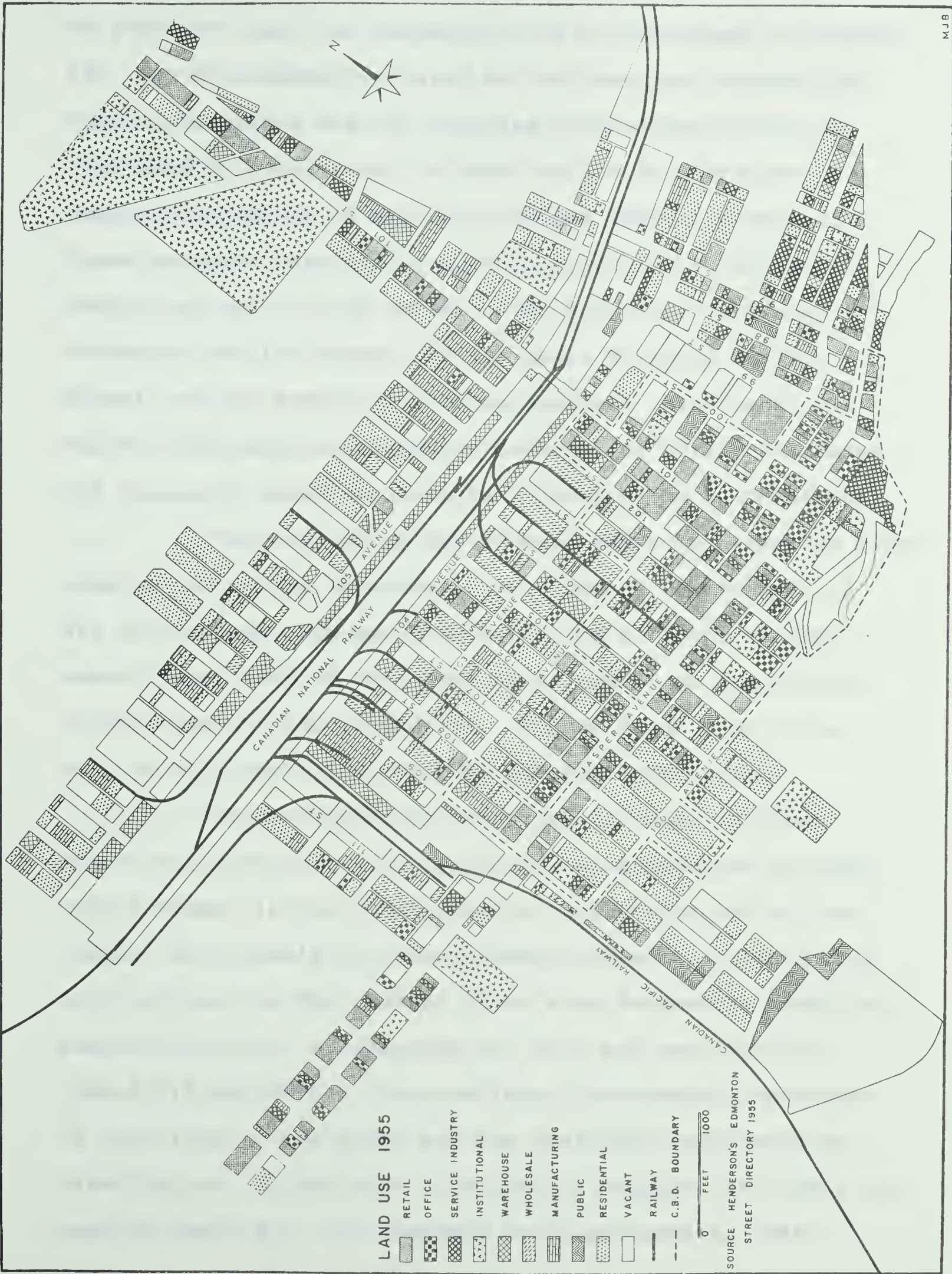
<sup>11</sup> Ibid., page 17.

<sup>12</sup> R. E. Preston, "The Zone in Transition: A Study of Urban Land Use Patterns", Economic Geog., Vol. 42, 1967, page 247.





# THE CENTRAL AREA OF EDMONTON .







By 1955, the land use pattern for 1950, discussed in Chapter III, was considerably altered by the changing location of various functions and the changing intensities of use as indicated by floor area. Within the C.B.D. there was massive relocation or expansion of the office locations. These expanded west and south within the C.B.D. to 100 Avenue and west to 108 Street. The Red Cross Building at 99 Avenue and 106 Street and the Baker Building at 105 Street and 100 Avenue clearly demonstrate this trend. It was the beginning of a massive movement of office buildings, the causes of which are more fully elaborated in Chapter V.

This new office development added considerable floor area to the office functions. As a result 72 per cent of all office space was now within the C.B.D. where it consumed 25 per cent of the total floor space, as compared to 23 per cent in 1950 (Figure 4). Figure 7 and 8 show that most of this was in the western parts of the C.B.D.

The importance of retailing in terms of floor space was decreasing. It continued being affected by westward movement in the C.B.D. and by re-distribution to the frame. As a result of this westward movement, by 1955 only 60.0 per cent of the central floor area devoted to retailing was in the C.B.D. as compared to 63.5 per cent in 1950 (Table VII and VIII). This reflects the growing importance of retailing in the frame and the declining importance of retailing as a C.B.D. use. In 1955 it occupied only 28.5 per cent of the C.B.D. as compared to 31 per cent in 1946.





This proportional decline reflects the increasingly specialized nature of the C.B.D. retail functions while the frame acted as a magnet for many large space using types of retail activity. This led to a continuing process of segregation of retail activity between the C.B.D. and the frame. Only those stores with very high rent paying ability could, in most cases, survive in the C.B.D. by 1955.

The minor expansion of service industrial uses in the central area and the actual decline in the C.B.D. did not give rise to any new distribution pattern of the function. Considerable increase in the number of cheap hotels in the area east of the Civic Centre increased the importance of the service function here and added to the rather transient characteristics of this part of the frame.

Wholesale, warehouse and manufacturing uses continued to occupy approximately the same areas in the central area in 1955 as in 1950, but increased in importance in the frame. Wholesale uses tended to congregate in the old established district while manufacturing and warehouse uses were increasingly gravitating to Area No. 9 of the frame giving this area a rather dismal appearance and encouraging residential evacuation of the area.

Public and governmental uses became intensified in the vicinity of the provincial government centre and the construction of a new City Hall in Area No. 7 was to become



the nucleus of a major development scheme.

As discussed in the body of this Chapter, residential space was almost universally declining while vacant space increased from 1950 to 1955. Much of this vacant space was in the western and central parts of the C.B.D. where sites were temporarily used for parking while awaiting redevelopment.

These trends resulted in a continued expansion of the C.B.D. towards the west and southwest to its present limits. Non central area residential uses were declining in both the C.B.D. and the frame as central area functions expanded. The only area where decline of residential and the expansion of central area functions were negligible was the zone of "passive assimilation" or Area No. 8 where there was little functional movement.





## CHAPTER V

### EVOLUTION OF THE CENTRAL AREA, 1955-1960

The Canadian economy suffered a recession in the years 1957 and 1958 and, throughout the country, this had serious repercussions on the building industry. In the city of Edmonton the "tight money" situation was largely responsible for a decrease in the value of building permits issued. In 1960 these were valued at \$56.2 million or \$2.5 million less than in 1955.<sup>1</sup>

Though the freeze on capital reduced the amount of construction activity, its effects were most felt in areas of residential development. A considerable amount of private development was undertaken in the central area of Edmonton during this period and the skyline of the C.B.D. was being radically altered by the rise of office towers.

Foremost among the new office structures were the Milner and Financial buildings at 104 Street and 100 Avenue, and 107 Street and 100 Avenue, respectively. North of Jasper Avenue the Bentall Building was being erected in 1960 at 10188 - 102 Street. The premises of the Edmonton Journal had been renovated and in 1960 work was begun on

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<sup>1</sup> Pers. Comm., City Architects Department, Edmonton.



an office tower at 10832 Jasper Avenue, the Professional Building. Many smaller office structures were also being erected in the C.B.D. at this date, but almost all were west of 100 Street, emphasizing even more strongly the continuing westward shift of the C.B.D. (Map 7).

Apart from office space little new construction was carried on in the C.B.D. between 1955 and 1960. The amount of additional space for service industrial uses was very small and there was no construction for retail or non C.B.D. functions. This, as shall be shown later in the Chapter, reflects the growing dominance of office space as the life-spring of the C.B.D. One innovation in the building patterns of the C.B.D. was the erection of commercial parking garages serving both customers and employees in the C.B.D.

Within the frame the new Esso Building, at 112 Street and Jasper Avenue, was the most remarkable development during this period. The continuing growth of automobile sales on the western part of Jasper Avenue continued to call for more construction, while some retail stores and offices were erected at 117 Street and Jasper Avenue in 1959.

Within the wholesale district there was little investment in new buildings. A renovated structure at 107 Street and 102 Avenue was converted to government offices. East of the C.B.D. the new City Hall had been





long completed by 1960 and a few new structures had also been erected on 97 Street. North of the Canadian National Railway property considerable amounts of construction were under way. Amongst these was the Marion Centre, a home for indigent persons, and a number of warehouses close by the railway lines. The steel plant at 103 Street and 105 Avenue was also expanding during this period.

So, despite the overall decrease in the value of building permits issued in the city as a whole, investment in the central area was considerable.

#### LAND USE AND FLOOR AREA CHANGES, 1955-1960

Between 1955 and 1960 the total floor space of the central area increased by 6.5 per cent as a result of expansion of almost all functions (Table III). In the C.B.D. where office, service industrial and public uses expanded total floor space increased by 3 per cent. In the frame total floor space expanded by 9.0 per cent (Tables IV and V). This expansion in the central area led to changes in the relative and absolute importance of each function. These changes are best understood when each function is analyzed separately.

Retail floor space in the central area decreased by 6.4 per cent between 1955 and 1960 (Table III). In the C.B.D. the decline was 16.4 per cent or 239,175 square feet (Table IV). On the other hand retail floor space in the



frame increased by 8.7 per cent with the result that 46.1 per cent of central area retail space was now in the frame as compared to 32.9 per cent in 1946 (Tables VII and X). Within the C.B.D. the declining importance of retail as a floor space consumer and the increasing significance of office space led to the establishment of office uses as the largest space user in the C.B.D. (Figure 4).

In the frame, expansion was due to continuing growth of automobile sales, but the overall decline in retail floor space indicates the growing trend towards neighbourhood shopping facilities and planned outlying centres. In Chapter IV it was noted that this trend had begun before 1955, though no new planned shopping centres had been opened. Construction of the first of these, Westmount Shoppers Park, began in 1955 when the population of the city was 209,353.<sup>2</sup> This would indicate that a figure of 200,000 was critical for efficient operation of the C.B.D. as a convenience goods centre. This corresponds closely to the findings for Calgary where a

"... population of 180,000 represented a critical limit for the efficiency of the central business district, by no means marking the beginning of a decline in central retail functions - quite the contrary - but clearly differentiating the specialized retail character of the central area from localized centres efficiently dispersed for day to day convenience of consumers."<sup>3</sup>

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<sup>2</sup> Civic Census of Edmonton, Alberta, 1955.

<sup>3</sup> P. J. Smith, "Calgary: A Study in Urban Pattern", Economic Geography, Vol. 38, 1962, page 327.





The development of outlying centres had considerable impact on many categories of retail trading but, as Table VI shows, there was not a uniform decline of all categories. The C.B.D. decreased in its relative importance both in the central area and the whole city as a centre for retail sales, but, at the same time, specialized types of retailing demanding a city-wide clientele were increasing therein.

All types of outlet in the food group declined in the C.B.D. while they remained unchanged in the frame. Grocery and candy stores declined most rapidly in the C.B.D.<sup>4</sup> One factor was the increasing land prices in the C.B.D. which stores with low rent paying ability, like grocery outlets, could not afford. The decline of C.B.D. food stores also reflects the continuing mass movement of people to suburban residences leaving no market for convenience goods in the C.B.D. A greater number of residents in the frame and the advantages of the City Market at 101A Avenue and 100 Street enabled these types of stores to survive in the frame.

The apparel group increased numerically from seventy-nine to eighty-five in the C.B.D. and from five to six in the frame. The most significant increase was registered in ladies fashion houses which increased 50 per cent in the C.B.D. This group is, par excellence, the type of specialty store which benefits from a city-wide market and from proximity to other stores which enable a wide range of comparison shopping. There was, however, a marked decline in the

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<sup>4</sup> All figures on numerical change are taken from Table VI.



category "other clothes" which included the sale of undergarments and drapery which did not require city-wide markets. This category increased by two in the frame and one of these may have been the Yardstick on 97 Street. Lower rents were inducement to this firm to move from 101 Street and the management considered 97 Street to provide the kind of market which their untailored materials required.<sup>5</sup>

The "general retail" group declined in the central area over this period. This decline was in fact confined to the C.B.D. while the number of outlets in the frame increased. Remarkably jewelry stores declined from twenty-six to twenty in the C.B.D. while department and book stores also declined in number. Many of the book stores, which would have been better described as "stationery" stores, suffered competition from the ever expanding drug stores. The decline of department stores, generally regarded as the best index of C.B.D. retail strength, was partly caused by competition from the outlying shopping centres. It is also possible that the apparent decline was exaggerated by the indecision of the compilers of the Telephone Directories as to just what is a department store. A store may one year be classed as "variety" and the next year as "department" without any change in the nature of its activity. Those department stores that moved were of a small nature and

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<sup>5</sup> Pers. Comm., with the manager of the Yardstick, Edmonton.





traded in cheaper lines of goods. The larger department stores continued to prosper in the C.B.D.

The most noticeable increase was in the number of Corner drug stores in the frame where they sold a wide variety of merchandise and, in many cases, they could operate on Sundays.

Appliance and furniture stores decreased in the C.B.D. from thirty to twenty-four between 1955 and 1960 and increased by one in the frame. Furniture stores alone decreased by one in the C.B.D. with the relocation of Campbells Self-Serve Furniture from 100A Street to 14520 - 111 Avenue. This firm found few advantages from C.B.D. location and was forced to move because of very high rent. Adequate space was available at the new location which was easily accessible by road. The new site provides amply display and parking space and the lower rents compensate for the greater amount of advertising required.<sup>6</sup>

However, not all furniture firms found that a suburban location was best. Campbell's Maple Village moved from Westmount Shoppers Park to 122 Street and Jasper Avenue in 1959. This new store shares the advantages of the frame, though it is outside the boundary of the central area. It benefits from a large volume of passing traffic from which it is able to attract many

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<sup>6</sup> Pers. Comm., with Manager of Campbell's Self-Serve Furniture, Edmonton.



customers. While accessories provided the main sales at Westmount, high quality furniture is in greater demand at the new location.<sup>7</sup>

Hardware stores decreased from thirteen to nine in the C.B.D. and by one in the frame, while appliance outlets decreased by one in each area. This reflects the large space needs of these groups and the adequacy of areas with lower valuation and rent.

Automobile sales increased from twenty-five to thirty units in the central area and by eight outlets in the frame, but there was both an areal and a numerical decline in the C.B.D. Automobile companies continued to find C.B.D. space too limited and too expensive so they moved out to the frame, or to a peripheral location. Those that moved to the frame relocated in Areas No. 5 and 10, the areas of strip commercial development. A typical example was Devonian Motors which moved in 1960 from the C.B.D to 113 Street and Jasper Avenue. High rents, lack of room for expansion and inadequate parking space all induced the outward move.<sup>8</sup>

Service stations decreased numerically in the C.B.D. and increased in the frame, while auto parts dealers also moved to the frame and out of the C.B.D. This movement of automobile sales and services greatly increased

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<sup>7</sup> Pers. Comm., with Manager of Campbell's Maple Village, Edmonton.

<sup>8</sup> Pers. Comm., with Devonian Motors, Edmonton Manager.





the proportion of central area retail space in the frame, and in Area No. 5 in particular. Retailing accounted for 35.5 per cent of the total floor space in Area No. 5 in 1960 as compared to 31 per cent in 1955 (Figure 10).

It was a further indication of the increasingly specialized nature of C.B.D. retail sales and the outward movement of large space consumers.

The declining status of C.B.D. retail activity in the case of Edmonton compares well with the findings for major metropolitan areas of the United States of America where one study of twelve major metropolitan areas showed that all had experienced an actual decline in the volume of retail sales.<sup>9</sup> This trend was also recorded in the C.B.D. of Honolulu between 1954 and 1959.<sup>10</sup>

From these references it is obvious that many C.B.D.'s besides that of Edmonton were being adversely affected by changing patterns of retail location. Figures for changing volume of sales in the C.B.D. of Edmonton are unavailable but the trends in both area and number of outlets substantiate the declining relative and actual significance of the C.B.D. as a retail goods centre during this period. The situation in the frame was different where

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<sup>9</sup> G. Sternlieb, "The Future of Retailing in the Core", Journal of A.I.P., Vol. 29, 1963, page 109.

<sup>10</sup> The C.B.D. of Honolulu, Honolulu City and County Planning Commission, 1959, page 20.



adequate space was available to accommodate the many types of large space consuming retail uses leaving the C.B.D. The above discussion of changing patterns of retail activity shows that while uses were vacating the C.B.D. they were often relocating in the area of the frame, thus expanding the frame towards its present boundaries. The increasing pressure on certain types of retail activity indicates the increasing specialization of the C.B.D. in all areas within its present limits. The dominance of large space consuming types of retail uses in the frame clearly distinguished it from the C.B.D. and established it as an area of distinctive retail functions. So within the central area retail activity was of importance in both the C.B.D. and the frame but in each it was becoming increasingly specialized and distinct.

Office floor space had increased by 30.0 per cent in the central area between 1955 and 1960; by 29.7 per cent in the C.B.D. and by 30.6 per cent in the frame (Tables III, IV and V). This massive expansion of office space led to its dominance as a space user in the C.B.D. and especially in Areas No. 1 and 3 (Figures 4, 6 and 8). The new Esso and Medical Arts Buildings led to a considerable increase in the importance of offices as space consumers in Area No. 5 of the frame (Figure 10). As might be expected much of this expansion was related to the construction outlined above, which showed office locations in the C.B.D. moving west and south of the central part of the C.B.D. Professional offices were of major significance in this development and





an analysis of Table VI reveals why many of these moves took place.

Medical offices increased very significantly in both the C.B.D. and the frame. Physicians and Surgeons increased by forty-eight in the C.B.D. and from three to fifty-three in the frame. Most of the increase in the C.B.D. was accommodated in the new medical offices in the southern part of Area No. 3 while the new Medical Arts Building at 110 Street and Jasper Avenue provided excellent working conditions and attracted some medical practitioners to a frame location. Dentists also increased in both areas as did Chiropractors in the C.B.D. These changes reveal that new office space either in the frame or near the edge of the C.B.D. was favoured by the medical group. These professionals do not depend on pedestrian traffic or impulse suggestion for clients, so do not need a very prominent location. The location of their offices is more influenced by ample parking, a pleasant environment and often by proximity to a hospital or clinic. These were the factors which Herbert and Williams found to be of significance in their study of Newcastle-under-Lyme in Staffordshire, England and they are also true for Edmonton.<sup>11</sup>

Other professional groups increased in both the

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<sup>11</sup> D. Herbert and W. Williams, "Some New Techniques for Studying Urban Sub-Divisions", Geographica Polonica, No. 3, 1964, page 98.



C.B.D. and the frame, especially Barristers who increased from one hundred and six to one hundred and sixty in the C.B.D. Both Barristers and Accountants have need of proximity to the main centres of commercial activity, where most of their work is created, and so they remain in the C.B.D. Engineers and Architects, on the other hand, are more closely associated with construction companies and do not need a C.B.D. location. Consequently, while Engineers increased in number in the frame they were vacating the C.B.D.

The financial group remained strong in the C.B.D. on account of a "common preoccupation with the operation of the nation's money market".<sup>12</sup>

Banks, finance agents and stockbrokers all remained concentrated in the C.B.D., especially on Jasper Avenue from 100 to 101 Street.

Real Estate and life insurance offices increased in the C.B.D. but not significantly in the frame. Fire Insurance offices, on the other hand, decreased by twelve, to fifty-four in the C.B.D. without any increase in the frame.

In this period Edmonton acquired the first of a number of regional office buildings and the most important

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<sup>12</sup> R. Vernon and E. M. Hoover, The Anatomy of A Metropolis, Harvard University Press, 1959, page 89.





of these, the Esso Building, was located at 112 Street and Jasper Avenue. A frame location is often preferable to the C.B.D. for such offices since most of their operations involve long distance and non-face-to-face contacts. But to accommodate employees a central location outside the high rent district of the C.B.D. is the most convenient compromise.

From the above it is clear that profound changes were taking place in the distribution and intensity of office functions between 1955 and 1960. Much of what has been said refers to professional offices but the same trends were also affecting other types of business offices. South and west of the C.B.D. several former quality houses had belonged to single estates. The presence of these estates greatly simplified the acquisition of spacious sites for new offices and parking in an area with a scenic view. The proximity of the government centre also added prestige to the area. As a result the trend to a changing pattern of office distribution was established by 1960.

Service industrial floor space increased in the central area by 7.7 per cent; by 3.4 per cent in the C.B.D. and by 15.4 per cent in the frame. However, these increases were of more significance in the C.B.D. where service uses now occupied 17.5 per cent of the total floor space as compared to 7.0 per cent of the frame (Figure 4 and 5). In spite of the areal increase, there was comparatively little proportional increase in the C.B.D. and this was largely confined to Area No. 1.

The first thing I noticed when I stepped out of the car was the smell of fresh paint. It was a mix of something I'd never smelled before and something I'd heard about in the news. The car was a 1965 Ford Mustang, and it was the first of its kind. I'd heard that the car was a masterpiece of design and engineering, and now I was seeing it for myself. The car was a dark color, and it had a sleek, aerodynamic shape. It was a real beauty.

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Table VI shows how various service uses have been surviving in terms of the number of outlets. In the C.B.D. the major increases were in the number of restaurants (thirty-seven to forty-one) and hairdressers (forty-nine to fifty-three) while cleaners, photographers and some others declined. In the frame the trends were much the same as in the C.B.D. The number of restaurants and hairdressers increased in the C.B.D. in many cases "where they crowd in to take advantage of shopping traffic."<sup>13</sup> Those that declined found that even the frame, but more especially neighbourhood centres, offered them more customers and cheaper overheads. As in the 1950-1955 period, if it had not been for the expansion of the hotel function, the area devoted to service uses in the C.B.D. would have declined. Expansion of the hotel function resulted from the construction of the Corona Hotel extension at 106 Street and Jasper Avenue. In the frame, cheap hotels and restaurants with distinct cultural peculiarities were increasing in demand. Most of these were within Area No. 8 (Figure 13) where they consumed 25 per cent of the floor space in 1960.

In summary, it can be said that, although the service function increased in area in all parts of the central

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<sup>13</sup> R. U. Ratcliff, "The Madison Central Business Area", Wisconsin Commerce Papers, Vol. 1, 1953, page 44.





area, it was confined to a few categories, mostly hotels and restaurants. Most other types of convenience services found it much more advantageous to move to a peripheral location.

Wholesale floor space increased by 18.5 per cent in the central area; 15.2 per cent in the C.B.D. and by 19.0 per cent in the frame (Tables III, IV and V). This represented a total increase of 200,000 square feet. Consequently, the relative importance of wholesaling space in the frame was increased from 12.5 per cent to 14.0 per cent in the total area (Figure 5). Within the C.B.D. expansion was mostly in Areas No. 2 and 3 (Figure 7 and 8) or in Area No. 5 west of the Canadian Pacific Railway where considerable development took place in 1956 and 1957. This was the only part of the frame that indicated a growth of wholesale uses while the expansion in the C.B.D. was directed largely to its northern margin.

In fact some of the firms in the wholesale district were quite dissatisfied with their location in the late 1950's. For example, the Massey-Ferguson Company tried to sell their property in the frame and consolidate its holdings on 125 Street in the suburbs. But there was no demand for the space and a reasonable price was unobtainable, so the property was unsold.

New wholesale permits continued to increase for the city but not for the central area on anything like the



same scale. As Smith pointed out for Calgary

The wholesale district had become inefficient for three reasons - the old multi-storey stores and warehouses were not designed for modern techniques of handling goods; the narrow streets and the lack of loading spaces off the streets greatly handicap the manoeuvring of trucks and the transfer of goods; and the dispersal of commercial facilities means that a central location for the distribution of wholesale wares is no longer necessary.<sup>14</sup>

These reasons were just as true for Edmonton, where Table VI shows many types of wholesale were declining in both the C.B.D. and the frame. Firms in the C.B.D. declined from twenty-three to ten while in the frame there was only a decline of three, to sixty-eight. This decrease in the number of wholesale outlets reflects the trend towards larger outlets covering a greater variety of goods. Those firms that did locate in the central area, especially in Area No. 5 of the frame found there was ample space for their needs and also proximity to a railway. Amongst these new firms were wholesale drug and glass companies and although they halted, at least temporarily, the declining status of central area wholesaling they did not greatly increase the importance of the function in either the C.B.D. or the frame.

Warehouse uses increased in area by 69,225 square feet or 13.2 per cent in the central area. The amount of

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<sup>14</sup> P. J. Smith, op.cit, page 327.





warehouse floor space increased by over 500 per cent in the C.B.D. and by 8.6 per cent in the frame (Tables III, IV and V). The 500 per cent increase in the C.B.D. represented a floor area increase of only 24,000 square feet, or three or four city lots. It resulted from the construction of garage facilities at Silverwood's Dairy on 109 Street in Area No. 3. Approximately 40,000 square feet was added to warehouse uses in the frame in Area No. 9 north of the Canadian National Railway (Figure 14). A greater number of storage uses were being recorded in this area as residential uses continued to move out.

Table VI shows that numerically there was a general decline in the few categories of warehousing listed. Three moving companies left the frame between 1955 and 1960. The growth of the city, advances in technology and the increasing scale of operations all tended to create demands for more space than a central area location could provide. Those firms that remained in the frame expanded where ever possible e.g. Allied Van Lines on 107 Street.

Manufacturing uses decreased in the C.B.D. in terms of floor space by 9 per cent but increased by 31.5 per cent in the frame. A number of bakeries, printing houses and small firms vacated the C.B.D. further reducing its significance as a manufacturing area. Table IV indicates that a small decline had taken place and uses of this type were avoiding the C.B.D. for both space and cost reasons.



Table VI indicates little growth in the number of manufacturing outlets in the frame. Much of the 31.5 per cent increase, or 205,800 square feet, was the result of expansion of a foundry on 103 Street and the increasing size of some construction companies in Area No. 9 (Figure 14).

Public uses consumed 19.1 per cent more floor space in the central area in 1960 than in 1955. The increase in the C.B.D. was 28.0 per cent and 21.1 per cent in the frame (Figures 3,4, and 5). This resulted in the growing importance of this function in both the C.B.D. and the frame and especially in Areas No.6 and 7 (Figures 11 and 12).

The development and operation of government offices in the wholesale area of the frame (Municipal Affairs) and the new City Hall (Area No.7) help explain the increasing importance of this function in the frame. Much of the increase in the C.B.D. was confined to Area No. 1 (Figure 6) where the City Recreation building and the expansion of the City Telephone offices account for this increase in floor space.

This pattern shows the continuing desirability of a central area location for public uses. The growing complexities of both provincial and municipal administration led to increases in the floor area devoted to this use. A new trend was the conversion of structures in the wholesale area (Area No. 5) to house some government functions.





Residential uses continued to decline in both area and quality in the face of growing central area functions. It declined 14.0 per cent for the whole central area; 39.4 per cent in the C.B.D. and by only 5.9 per cent in the frame (Tables III, IV and V). As a result the significance of residential floor space decreased by 2 per cent in the central area and by 2.5 per cent in the frame (Figures 3 and 5). Also, parts of the C.B.D. had a decrease in the area devoted to this function as a result of expansion of C.B.D. uses (Figures 6, 7 and 8).

Vacant space decreased by 10.7 per cent in the central area, but increased by 17.2 per cent in the C.B.D. (Tables III and IV). As a result the percentage of vacant space decreased by 5 per cent in the central area and by 2 per cent in the frame, but increased its proportionate importance in the C.B.D. by 2.9 per cent. The increase occurred in all parts of the C.B.D. and reflects the growing demand for parking space as well as the clearance of large areas for redevelopment. Much of this clearance occurred at the corner of 101 Street and 103 Avenue where eight lots of retail stores were replaced by parking uses. The decrease of vacant space in the frame reflects the growth of warehouse facilities on previously unused land.



## LAND USE PATTERN, 1960

TABLE X - FLOOR SPACE OCCUPIED BY EACH FUNCTION - 1960

Function	C.B.D.*	Per-centage in C.B.D.	Frame*	Per-centage in Frame	Central Area*
Retail	1,452,540	53.9	1,244,350	46.1	2,696,890
Office	1,953,030	72.0	757,700	28.0	2,710,730
Service Industry	1,105,900	62.1	673,700	37.9	1,779,600
Institutional	205,000	42.5	277,200	57.5	482,370
Warehouse	29,300	4.9	564,225	95.1	593,525
Wholesale	205,000	13.9	1,269,450	86.1	1,474,450
Manufacturing	217,875	20.2	859,850	79.8	1,077,725
Residential	233,900	17.1	1,130,400	82.9	1,364,300
Public	265,300	20.7	1,019,225	79.3	1,284,525
Vacant	553,000	29.2	1,340,000	70.8	1,893,000
Total	6,221,015	40.5	9,136,100	59.5	15,357,115

Source: Map 7 and Fire Insurance Maps.

\*Area in square feet.

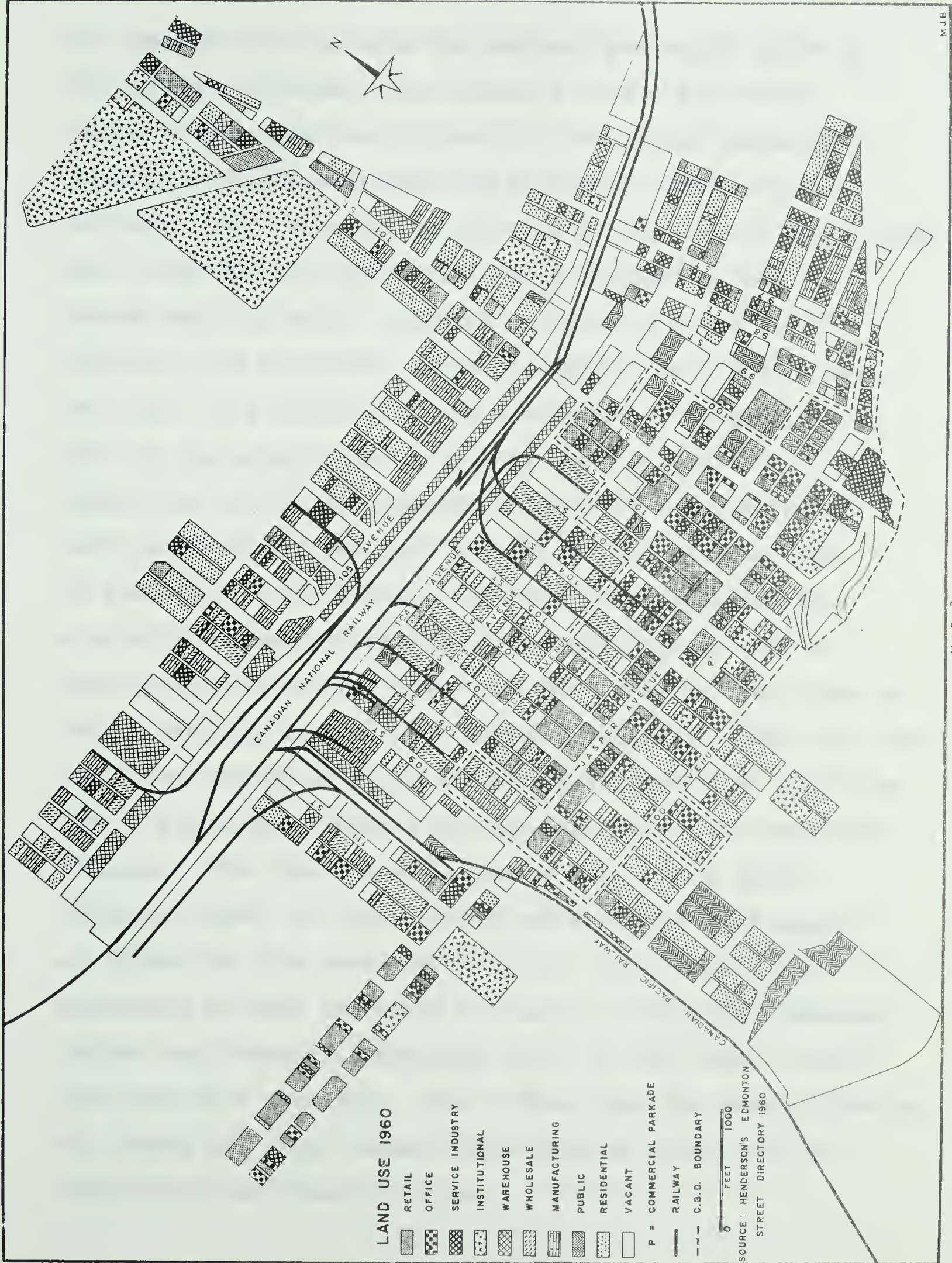
The preceeding pages describe the changes in both the relative and actual importance of each function in the central area. Some mention was also made of changes in the location of functions. Between 1955 and 1960 these changes in the location intensified former trends and expanded the area devoted to actual area functions (Map 7).

Retail uses were still spread out along the length of Jasper Avenue from 100 Street to 118 Street. Considerable intensification had taken place, meanwhile, and the westward movement of automobile sales was indicative of the westward shift and growth of most of the central area retail uses.





# THE CENTRAL AREA OF EDMONTON.







The reasons for this were the westward geographic shift of the cities population, with access to the C.B.D. along Jasper Avenue, and the difficulty of expanding eastwards because of numerous dilapidated structures and irregular building lots. As well, to the east of the central area, there were high density residential areas occupied by low income families where clearance of building sites was difficult and the retail market for high cost articles was not good. All of these led to a westward development of much of the retail function and so, as a result, the proportion of central area retail space in the C.B.D. had declined from 67.1 per cent in 1946 to only 53.9 per cent in 1960 (Tables VII and X). The frame had developed into a significant retail centre and contained almost half of the central area retail space, by 1960. However, the types of retail activity in each part differed radically. The C.B.D. continued to develop as a centre for specialized goods requiring both a city-wide clientele and the possibility of comparative shopping. The frame became a centre for large space consuming types of retail which could neither find space or afford the high rents of the C.B.D. As a result the appearance of both continued to change. The C.B.D. remained compact and intensely developed while, in the frame, retail uses were more extensive. Map 7 shows that the retail function was spread out along Jasper Avenue from 97 Street to 118 Street and also along 101 Street.





Meanwhile different needs and different demands were carving out a different pattern of office space in the central area. In 1955 it was noted that some of the office functions, particularly medical offices, had located in new spacious offices in less developed parts of the C.B.D. or in the frame. The main location for new medical offices was the southern part of the C.B.D. where there was less difficulty in assembling land and less land speculation. Most of the offices were close to the south western corner of the C.B.D. where prestige of the government centre ensured that land values would not collapse and gave an air of respectability to the place. Most of the offices were within walking distance of the C.B.D. and yet they could benefit from a pleasing location with a view of the North Saskatchewan River Valley. This added a degree of sophistication to the choice and, although difficult to measure, this was shown to be an influencing factor in the location of some offices.

This led to a changing distribution of the amounts of office space in the C.B.D. and frame or in parts of each. In 1960 the C.B.D. still contained 72.0 per cent of the office space of the central area (as it did in 1955). This percentage remained constant as a result of proportionate growth of the office function in both, C.B.D. and frame. It was in Areas No. 2 and 3 of the C.B.D. that much of the C.B.D. increase occurred, thus reflecting the southwestward development of the office uses. In the frame most of the development was



confined to Area No. 5 (Figure 10) where a headquarters office had been erected.

The pattern of service industrial and institutional uses remained rather similar to that for 1955. This was generally true of warehousing and wholesaling too, though there was some development of wholesaling west of the Canadian Pacific Properties in Area No. 5. Meanwhile, manufacturing uses were intensifying in Area No. 9 (Figure 14).

As in previous years the expansion of central area functions was at the expense of residential space. Since most of the actual expansion from 1955 to 1960 was in the C.B.D. residential uses declined considerably here. As a result the space devoted to residences in the C.B.D. declined by a further 39.4 per cent and, in 1960, it accounted for only 3.0 per cent of C.B.D. floor space as compared to 15.0 per cent in 1946 (Table IV and Figure 4). Residential uses did not decline in the frame between 1955 and 1960, and as a result 82.9 per cent of central area residential floor space was in the frame as compared to only 75.7 per cent in 1955 (Tables IX and X). This indicates that C.B.D. functions were expanding more rapidly than uses in the frame, and so causing a more rapid disappearance of residences.

The pattern of governmental activities was perhaps changing most. The government centre was almost wholly mono-functional but a new City Hall in Area No. 7 (Figure 12) and





the expansion of some government departments into renovated wholesale structures in Area No. 4 changed the pattern considerably (Map 7). These offices also offered some competition for space in Area No. 4.

The functional changes outlined above led to changes in the distribution of uses (Map 7). In 1960 40.5 per cent of the total floor space of the central area was in the C.B.D. as compared to approximately 41 per cent in previous years. This change in the importance of the frame as a space user results from the development of multi-story company and government offices in Areas No. 5, 6 and 7. Most of the company offices were headquarters offices which did not require a central C.B.D. location and so chose the frame or a pleasant spacious location near the C.B.D. edge. These developments resulted in the continuing southwestward shift of the office functions in the central area (Map 7).

While service industrial uses changed little in pattern of distribution wholesale uses continued to dominate in Area No. 5 and had expanded into that part of Area No. 5 adjacent to the railway. Manufacturing uses remained anchored in Area No. 9 where in 1960 they occupied 29 per cent of the floor space as compared to 14 per cent in 1946 (Figure 14).

By 1960 the C.B.D. was fast expanding to its present boundaries and consequently was pushing frame uses out beyond this to the present confines of the frame. Central area uses expanded at the expense of non-central area



residential space and also at the expense of vacant land. As a result, by 1960 the shape and functional arrangement of the central area and its parts were close to what they are today.





## CHAPTER VI

### EVOLUTION OF THE CENTRAL AREA, 1960-1966

During these six years the population of Edmonton increased by 25 per cent, to 374,406 in the city and 398,587 in the metropolitan area. The city of Calgary increased by 24 per cent, giving the province of Alberta the fastest growing cities in Canada.<sup>1</sup> The continuing increase of the urban population and the continuing economic prosperity of the province, reflected in record incomes in 1966 for wheat, tourism and oil production, gave the major city a strong impetus for continuing development and expansion of all its functions.<sup>2</sup> Within the city the value of building permits issued in 1966 increased to \$135.6 million as compared to \$100.8 million in 1960.<sup>3</sup>

Within the central area, the effects of large scale investment were seen in drastic changes to the city's skyline. High-rise offices continued to spring up in both the C.B.D. and the frame (Maps 8, 9 and 10). In the frame and in a large area to the south and west of it there was mushrooming

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<sup>1</sup> Edmonton Journal, September 30, 1966.

<sup>2</sup> Statistical Yearbook, Dominion Bureau of Statistics, 1966, pages 567 - 608.

<sup>3</sup> Pers. Comm., City of Edmonton Architects Department.



development of high-rise apartments, taking advantage of the spectacular view of the valley of the North Saskatchewan River, adequate land, proximity to the centre of employment and benefitting from the advantages of "downtown" living.

Within the C.B.D. work was completed on the Executive office tower at the junction of Jasper Avenue and 109 Street (Map 3). Professional offices, for the most part, occupy the new Royal Bank and Empire Buildings at the peak land value intersection, while Thornton Court at Jasper Avenue and 99 Street is largely occupied by members of the legal profession. Together with the completion of the Professional and Bank of Montreal buildings and the construction of many smaller structures some 750,000 square feet of new office space had been added to the office function in the C.B.D. by 1966. Construction of the Centennial Building at 100 Street and 103 Avenue, a new office tower, is underway, and plans for a thirty-four storey building in the C.B.D. to house Alberta Government Telephones have recently been announced. This and a twelve storey office block will be located between 100 Avenue and Jasper Avenue on 100 Street. Together with existing office buildings these should give a very compact and highly developed look to the C.B.D. of Edmonton.

This high-rise office development within the C.B.D. is paralleled by the erection of three multi-storey hotels on 100 Avenue. These add several thousand square feet and, together with adjoining developments in the frame have created a new transient accommodation centre on 100 Avenue.





All this construction of office and hotel space radically changed the skyline of the C.B.D. and provided room for much additional employment. The employment gains, though, were almost wholly confined to office and hotel functions since almost no new retail or other types of service industrial space were erected.

Within the frame in this period, there was no development in the western sector, little in the north and only one hotel, one office and two high-rise apartments in the southern area on 100 Avenue. It was in the eastern part of the frame, in Area No. 7, that development was progressing most rapidly. Here, the Canadian National Tower, finished in 1966, provided twenty-four floors of office space. Chancery Hall was another major office building while the nearby Avord Arms building became one of the largest apartment towers in the city. Construction of a new Public Library in the same area is now complete and a new coliseum and auditorium may be located at 99 Street and 101A Avenue. A small motel on 102 Avenue at 97 Street added some good quality transient accommodation in Area No. 8.

In the period 1960 to 1966 there was a record amount of investment in Edmonton's central area but this was almost all channelled to the office function or the hotel group of service industrial uses. The lack of investment in retail outlets confirms the earlier trend



of the relative decline in the importance of C.B.D. retailing, at least in terms of floor space.

#### LAND USE AND FLOOR AREA CHANGES, 1960-1966

Maps 8, 9 and 10 show the land use pattern of central Edmonton for ground, second and upper floors respectively. These maps display the continuing intense and varied development of the central area. The total floor area devoted to uses in the C.B.D. increased by 28.9 per cent from 1960 and by 24.9 per cent in the frame (Tables IV and V). Most of this increase resulted from expansion of hotel and office uses in both the C.B.D. and the frame, and in the frame there was also a 122.7 per cent increase of warehouse space.

An examination of the changes taking place in each function will lead to a better understanding of the overall changes in the central area.

Retail uses reversed the 1955 to 1960 trend and increased by 2.2 per cent in the central area. Figure 3, though, shows that there was an even greater growth in other functions so that the relative importance of retailing decreased to 14 per cent of total floor area as compared to 17 per cent in 1960. The same trend was repeated within the C.B.D. Despite a 10.4 per cent growth of retail floor space, the growth of other





functions caused retailing to decrease to just 20 per cent of the total C.B.D. floor space in 1966 (Figure 4). Table V shows that retail floor space in the frame reversed all previous trends and declined by 7.3 per cent. This decline, when combined with increases in the floor area of other functions, reduced the relative spatial importance of frame retailing by 3.6 per cent (Figure 5). Most of the decrease in retail floor space was registered in Area No. 5 (Figure 10).

Table VI enables a much closer analysis to be made of the differential rates of change amongst uses. It also brings out those parts of the central area in which change was most pronounced. Food stores with the exception of candy stores, all declined in the C.B.D. Grocery stores declined most rapidly, from four to one in the C.B.D. Only grocery stores increased the number of outlets in the frame. Many of these new food stores in the frame occupy the frontage of the new City Market at 97 Street. The presence of the City Market, as well as a large population in the area helped ensure a continuing market for consumer goods. Some food stores opened up to the west of the C.B.D. also, to serve the increasing market provided by high-income residents of multi-storey apartments.

The fast rate of decline discussed above



reflects the unimportance of the C.B.D. as a centre for food stores while the frame continued to serve local or nearby residents with daily needs. The continuing development of central area high-rise apartments ensures an expanding role for this group of stores in the frame. The plans for a large supermarket at 117 Street and Jasper Avenue would seem to indicate the future importance of some types of food stores.<sup>4</sup>

The apparel group did not suffer any such decline. All, with the exception of menswear, increased numerically in the C.B.D. and menswear declined by only one outlet to eighteen. In the frame most types of apparel stores increased but "other clothes" decreased. "Other clothes" combine a varied assortment of untailored materials, underwear and standardized items that find adequate outlets in regional shopping centres. As a result it is not surprising that they decreased from 3 to 2 in the frame. The one shoe store in the frame was Del Marche Shoes at 107 Street and Jasper Avenue. This store opened in 1962 and has remained in the frame because of low rental and its convenience for the large numbers of lunch hour shoppers who come from the government centre.<sup>5</sup>

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<sup>4</sup> Pers. Comm., District Manager, Crosstown Motors, Edmonton.

<sup>5</sup> Pers. Comm., with owner of Del Marche Shoes, Edmonton.





So apparel goods stores continued to flourish in the C.B.D. Their great number and variety distinguishes the C.B.D. retail function from that of any other part of the city, including the frame.

The group listed as general retail in Table VI underwent a variety of changes. Variety, smoke, second-hand and music goods stores decreased in the C.B.D., while most others remained stable or showed some increase. The decrease in the number of smoke shops reflects the growing trend towards larger establishments as well as the need for closer proximity to the customer. In the case of second-hand stores the C.B.D. rents proved too high and the competition of big stores too strong. Most of the typical C.B.D. types of retail stores increased numerically, e.g. department and book stores. In the frame almost all types of "general" stores, with the exception of jewelry stores, increased numerically. Many, such as drug stores or second-hand stores, found a good market in the frame, and particularly in Areas No. 7 and 8.

All types of appliance stores continued to vacate the C.B.D. They decreased from twenty-four to eleven, increasing from seventeen to twenty-three in the frame (Table VI). The decline in the C.B.D. reflected the large space needs and low threshold population of this group. Most of those vacating the C.B.D. fled the central



area altogether, but the European Art Salon at 117 Street and Jasper Avenue is typical of those that chose a frame location. To find a large building, lower rents, better parking facilities and room for expansion this firm moved west thirteen blocks from the C.B.D.<sup>6</sup> Here, they are on a major traffic artery carrying a large volume of traffic into the C.B.D. and their business has benefitted from passing trade.

As in previous periods the C.B.D. was shown to have many disadvantages for space consuming types of retailing, such as furniture stores, while the frame offered many advantages. The same factors had governed central area automobile sales locations in the past. By 1966, though, there was some change of thought about the advantages of any part of the central area for automobile sales premises. In 1950, Area No. 5 along Jasper Avenue had offered enough space at a low enough cost to warrant vacating the C.B.D. In 1966, one dealer compared the present conditions of the frame to those that existed within the limits of the present C.B.D. area some fifteen years ago.<sup>7</sup> In his view the frame is now just as

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<sup>6</sup> Pers. Comm., Manager of European Art Salon.

<sup>7</sup> Pers. Comm., District Sales Manager, Edmonton Motors.





crowded and fragmented and has just as high a rental value as the C.B.D. in 1950. Nevertheless, those automobile firms that persisted in the C.B.D. did find room for expansion; e.g. Jenner Motors, on Jasper Avenue and 107 Street, were able to add many lots to their show rooms, but at a high price. Together with a used car lot at 101 Street and 103 Avenue this expansion of automobile sales explains the 10.4 per cent of C.B.D. retail floor space after 1960 (Table IV).

In the frame there was no recession in the area devoted to automobile sales. The 101 Street ribbon in Area No. 10 continued to be devoted mainly to used car sales while Area No. 5 was more concerned with the sale of new vehicles. Service stations and the sale of auto parts followed similar trends.

None of the auto dealers spoken to in the C.B.D. could see any advantage in presently moving to the frame and few would consider Area No. 5 a true "automobile row". Preston noted in his study of American cities that the "automobile row - the area where automobile saleslots and showrooms line both sides of the street - was found to be far beyond the outer boundary of the transition zone".<sup>8</sup> Perhaps one such automobile row has just been initiated in Edmonton

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<sup>8</sup> R. E. Preston, "The Zone in Transition: A Study of Urban Land Use Patterns", Ec. Geog., Vol. 42, 1966, pages 253-254.



by Crosstown Motors, who moved from Area No. 5 to an eight acre site at 104 Avenue and 118 Street. The availability of adequate space at a reasonable cost may continue to encourage such moves.

This discussion shows that the C.B.D. continued to specialize in certain types of retail activities in 1966. Meanwhile, the frame seemed to be becoming increasingly crowded and consequently was losing some of its advantage as a centre for large space consuming retail uses.

Office uses showed scarcely any increase in their proportion of central area space but in the C.B.D. they continued to occupy over 30 per cent of the total floor space and were by far the largest space consumers (Figures 3 and 4). In actual area this function increased by 29.1 per cent in the central area, 28.1 per cent in the C.B.D. and 31.7 per cent in the frame (Tables III, IV and V). A comparison of Map 7 with Maps 8, 9, and 10 reveals more closely where much of this new office space was being located. Within the C.B.D. many new offices were constructed and most of these were south west of the peak land value intersection and the centre of the C.B.D. This reinforced the earlier trends discussed in Chapter V. In the frame major redevelopment in Area No. 7, the civic centre, had led to the formation of a large number of office





towers in the area. Figures 7 and 8 demonstrate the proportionate increase in the western part of the C.B.D. Figures 9 and 12 show the rate of proportionate increase in the eastern part of the frame.

Table VI gives an insight into changes in the number of offices in the central area. All types of medical offices continued to remain little changed in number in the C.B.D. while physicians and surgeons increased from fifty-three to seventy-six in the frame. As Herbert points out:

Professional men such as doctors and dentists have no end product of their skill which they can display but rest on the value of their reputation to attract customers. The best location would be, therefore, in amenable surroundings which are easily accessible to the general public and are yet away from the noise and bustle of the shopping area.<sup>9</sup>

In the case of Edmonton these requirements led to the location of the medical offices outside the C.B.D. either in the frame or, as was more often the case, in the peripheral areas of the city.

With the exception of veterinarians, all other professional groups increased in the C.B.D. and most reversed former counts and declined in the frame, (e.g. Engineers). The increasing size of the city demanded an increase in the professional group but it is

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<sup>9</sup> D. T. Herbert and W. W. Williams, "Some New Techniques for Studying Urban Subdivisions", Geographica Polonica, Vol. 3, 1964, page 98.



impossible to explain why engineers should reverse former trends and show a preference for the C.B.D. The other types of professional groups might be expected to increase in the C.B.D. where much of their business was generated.

All types of businesses involved in handling both municipal and provincial finances increased in the C.B.D. but real estate agents and insurance dealers found many disadvantages in the C.B.D. location. They therefore declined in number. This was also true of manufacturing agents who have more need of association with distributing firms than a C.B.D. location. But, while insurance and real estate offices decreased in the C.B.D. they increased greatly in the frame.

"The advantages of the C.B.D. core [C.B.D. as defined in Chapter I] no longer satisfy the needs of the insurance industry as much as in the past... [but] ... the C.B.D. frame [frame] shows an increasing significance as a locational zone, indicating that all movement is not to outlying areas." <sup>10</sup>

This conclusion of Horwood and Boyce holds good for Edmonton where insurance offices were vacating the C.B.D. for the frame or suburban locations. Many of these firms, such as Wawanesa Mutual Insurance at 100 Avenue and 108 Street, do much of their business with agents outside

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<sup>10</sup> E. Horwood and R. Boyce, Studies of the Central Business District and Urban Freeway Development, University of Washington Press, 1959, page 69.





the city and it is necessary to provide them with easily accessible offices at which ready parking is available.<sup>11</sup>

The real estate agents handle suburban property mainly and so require many suburban rather than central area outlets.

These changes in the professional office group do not directly reflect the tremendous expansion of company offices, especially offices of firms involved in the oil industry, in the central area. Like professional offices, company offices were expanding rapidly and occupying large amounts of space in almost all office buildings. By and large they were undergoing the same shifts in patterns of location as professional groups.

Service industrial uses were changing in both parts of the central area. In actual floor space this function increased by 46.9 per cent in the central area and 76.9 per cent in the C.B.D. but it declined by 2.3 per cent in the frame (Tables III, IV and V). This is reflected in a proportionate gain of 7 per cent for the function in the C.B.D. (Figure 4) and a decline of 1.0 per cent in proportion of total floor space in the frame (Figure 5). The increase in the C.B.D. was concentrated in Areas No. 1 and 3 (Figure 6 and 8).

An analysis of the service industries listed in Table VI shows which types of services were responsible for the growth in the C.B.D. Most service industries, with

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<sup>11</sup> Pers. Comm., Alberta Manager, Wawanesa Mutual Insurance.



the exception of hotels, motels and restaurants, either did not increase or actually decreased in number in the C.B.D. in this period. The increase in restaurants was a response to the increase in central area employment, and to the growing demand for high-quality eating places. Almost all of the floor area increase resulted from the construction of three major hotels on 100 Avenue. These added about 1,000,000 square feet to service uses and, had they not been constructed, C.B.D. service uses would have increased in area by only 1 per cent or 400 square feet. This hotel construction led to the conversion of 100 Avenue into a centre for high class transient accommodation in an area where ample building and parking space was available in proximity to the centre of the C.B.D. There was also the advantage of a large amount of trade from the government centre.

In the frame the amount of service industrial space declined by 2.3 per cent or 15,700 square feet. Though two motor hotels had been erected they did not compensate for the decline of such facilities as hair-dressing salons or photographic studios. The increasing number of distinctive cafes in Area No. 8 is to be expected with the influx of various ethnic minorities into the area.

There was, then, a growth of service industrial outlets in the central area in terms of area but a decrease in their numbers. Especially in the C.B.D., hotels





increasingly contained a number of smaller outlets such as restaurants, shoe shine services and hairdressing salons. This trend was not yet as evident in the frame.

Institutional uses continued to occupy a small area in both the C.B.D. and the frame. No change in the distribution pattern of this function in the C.B.D. could be discerned but in the frame Queen's Avenue High School ceased to exist. The Victoria Composite High School was expanding in Area No. 10 and there has been some recent expansion of the General Hospital in Area No. 5. In many cases institutional uses have little advantage to gain from a central area location and have been able to survive there only as a result of their tax free status.

Warehousing floor space increased by 115.5 per cent in the central area and by 122.7 per cent in the frame, but it declined in the C.B.D. As a result warehouse uses accounted for 6.5 per cent of the central area floor space of the frame. This increase was confined mostly to Areas No. 4, 8 and 9 where additional space was converted to storage uses (Figures 9, 13 and 14).

Table VI shows that there was no numerical increase in storage uses in the C.B.D., in keeping with



the 6,000 square feet or 2.5 per cent decline in area. In the frame however the numerical increase did not warrant the increase shown in Table V. This tremendous increase, covering half a million square feet is largely explained by expansion of firms already located in Area No. 9 and by a discrepancy between 1966 and previous sources of information. The 1966 information results from a detailed field survey of every lot in the central area. Consequently, all storage space is separated from other functions and calculated independently. In previous years the Street Directories were the source of information and in most cases they do not record storage space adjacent to, and indispensable from, many firms. This, of course, results in a massive increase in the 1966 total as compared to previous years. However, the trend since 1960 has been towards the growth of storage space in those parts of the frame close to the railway. This was still continuing and, in 1966, Cliff's Towing on 106 Street, Allied Van Lines on 107 Street and Northwest Utilities on 112 Street were occupying several square feet more space than in 1955 or 1960.

This intensification of warehouse uses detracts from the appearance of Area No. 9 and it is presently not going to attract any function needing pleasant surroundings. Nevertheless, a close proximity to the railway lines and to the C.B.D. give it some advantages for the supply of





the C.B.D. and its presence contributes to the efficient operation of the C.B.D.

Wholesale floor space, as shown on Map 8, remained largely tied to Area No. 4 (Figure 9). The area devoted to this function decreased slightly (0.7 per cent) in the central area, but increased by 6.8 per cent in the C.B.D. and declined by 2.2 per cent in the frame. These trends, however, resulted in little change in the relative importance of wholesale uses in either the frame or the C.B.D. (Figures 4 and 5).

The increase of 6.8 per cent or 14,000 square feet in the C.B.D. was confined to Area No. 2 (Figure 7). It resulted from a small increase in the number of wholesale outlets in the block, surrounded by 102 and 103 Streets and by 102 and 103 Avenues.

In the frame, wholesale space declined by 2.2 per cent to continue a long-term trend which arose from the increasing unsuitability of the central area for most wholesale uses. The situation was similar to 1960 when firms were willing to vacate their often good quality, but cramped operating space and move to a more spacious peripheral location. Unfortunately, there was little demand for their premises or the space upon which they were built and as a result firms were forced to remain in the central area, especially the frame. A good example of this is Massey-Ferguson Ltd. on 106 Street.



Though most of the new construction of wholesale premises in Edmonton is outside the central area, those firms presently in the centre will be forced to remain until some effective demand is created for their property.

However,

the fact that the transition zone is no longer the desirable location it once was, does not by any means indicate that these activities are insignificant there.<sup>12</sup>

In Edmonton, despite the declining status of wholesale in the frame, this function was still one of the largest space consumers in the whole central area occupying 7.2 per cent of total floor space (Figure 3).

Manufacturing uses decreased in area by 15.2 per cent in the central area; by 40.3 per cent in the C.B.D. and by 8.9 per cent in the frame (Tables III, IV and V). As a result, manufacturing uses occupied only 5 per cent of the central area as compared to 7 per cent in 1960 (Figure 3). The decline in the relative importance of frame manufacturing was even greater (-3 per cent).

The 40.3 per cent decline in the C.B.D. represented a decrease of 87,875 square feet. The numerical count in Table VI shows that printing, tailoring and baking establishments declined. La Fleche Tailors vacated a large property on 102 Street and Jasper Avenue in 1962 in favour of a suburban location. Lack of

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<sup>12</sup> R. E. Preston, op.cit., page 251.





parking in the C.B.D. and few advantages from C.B.D. location encouraged this and a similar relocation move in Calgary.<sup>13</sup>

In the frame there was an 8.8 per cent decline in the proportionate importance of manufacturing uses in Area No. 9 (Figure 14) where some uses declined in area. As in the case of warehousing, a field survey defined more precisely than was possible from the Street Directories the limits and size of establishments in this function. As in the C.B.D. the frame offered few advantages as a manufacturing location and most firms chose a peripheral site rather than a central location.

Public uses increased in area by 44.6 per cent in the central area, 68.6 per cent in the C.B.D. and 38.4 per cent in the frame. The 68.6 per cent increase in the C.B.D. resulted from expansion of government offices into a large privately owned tower at 109 Street and Jasper Avenue as well as from some expansion of telephone company offices. As a result, public uses consumed 6 per cent of C.B.D space in 1966 and plans for a new Alberta Government Telephones Building at 100 Street and 100 Avenue will further increase the roll of public uses.

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<sup>13</sup> Pers. Comm., With Edmonton Manager of La Fleche Tailors.



In the frame there was some expansion in Area No. 6 (Figure 11), through the renovation of older buildings. But most of the expansion was in the Civic Centre (Figure 12) where public uses increased their proportionate importance by 7.5 per cent. Most of this resulted from the movement of government functions into the Canadian National Tower.

Residential uses in the central area reversed all former space trends and increased by 53.9 per cent (Table III). In the frame the increase was 72.3 per cent (Table V). In the C.B.D., however, there was a further decrease of 35.1 per cent, (Table IV) as some of the remaining residential properties were taken over for commercial uses. In the frame the trends of previous years were reversed by the development of high-rise luxury apartments, which were located mostly in the south or southwest parts of the central area. The location of new high-rise apartments in Edmonton can be compared to Tacoma where:

apartments provide accommodation for childless couples, single people, retired people and others for whom convenience to the city centre is important. The area is served by several transit routes and within walking distance of employment, shopping and cultural entertainment activities in the C.B.D. Core [C.B.D.]. One important amenity feature of this section is its view of the Bay and Waterfront.<sup>14</sup>

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<sup>14</sup> The CBD Frame, Tacoma City Planning Department, Part III of C.B.D. plan, 1963, page 57.





Recently announced plans indicate the continuance of this trend.

Vacant space increased by 39.2 per cent in the C.B.D. and by 24.2 per cent in the frame by 1966 (Tables IV and V). As a result vacant space in the central area increased in proportionate importance by 5 per cent (Figure 3). In the C.B.D. most of this was used for private or commercial parking. Only one small office building in the whole C.B.D. was unused in 1966.

Vacant space in the frame was 1,664,000 square feet. Much of this was in Area No. 9 and Area No. 7 where much land in the vicinity of the City Hall was not developed.

#### LAND USE PATTERN, 1966

TABLE XI - FLOOR SPACE OCCUPIED BY EACH FUNCTION - 1966

Function	C.B.D.*	Per- centage in C.B.D.	Frame*	Per- centage in Frame	Central Area *
Retail	1,603,075	58.2	1,153,150	41.8	2,756,225
Office	2,502,025	71.5	997,775	28.5	3,499,800
Service Industry	1,956,275	74.8	658,050	25.2	2,614,325
Institutional	200,100	40.5	294,000	59.5	494,100
Warehouse	23,000	1.8	1,256,250	98.2	1,279,250
Wholesale	219,000	14.9	1,241,050	85.1	1,460,050
Manufacturing	130,000	14.2	783,500	85.8	913,500
Residential	151,800	7.2	1,947,600	92.8	2,099,400
Public	447,400	24.0	1,410,600	76.0	1,858,000
Vacant	770,000	31.6	1,664,000	68.4	2,434,000
Total	8,002,675	41.2	11,405,975	58.8	19,408,650

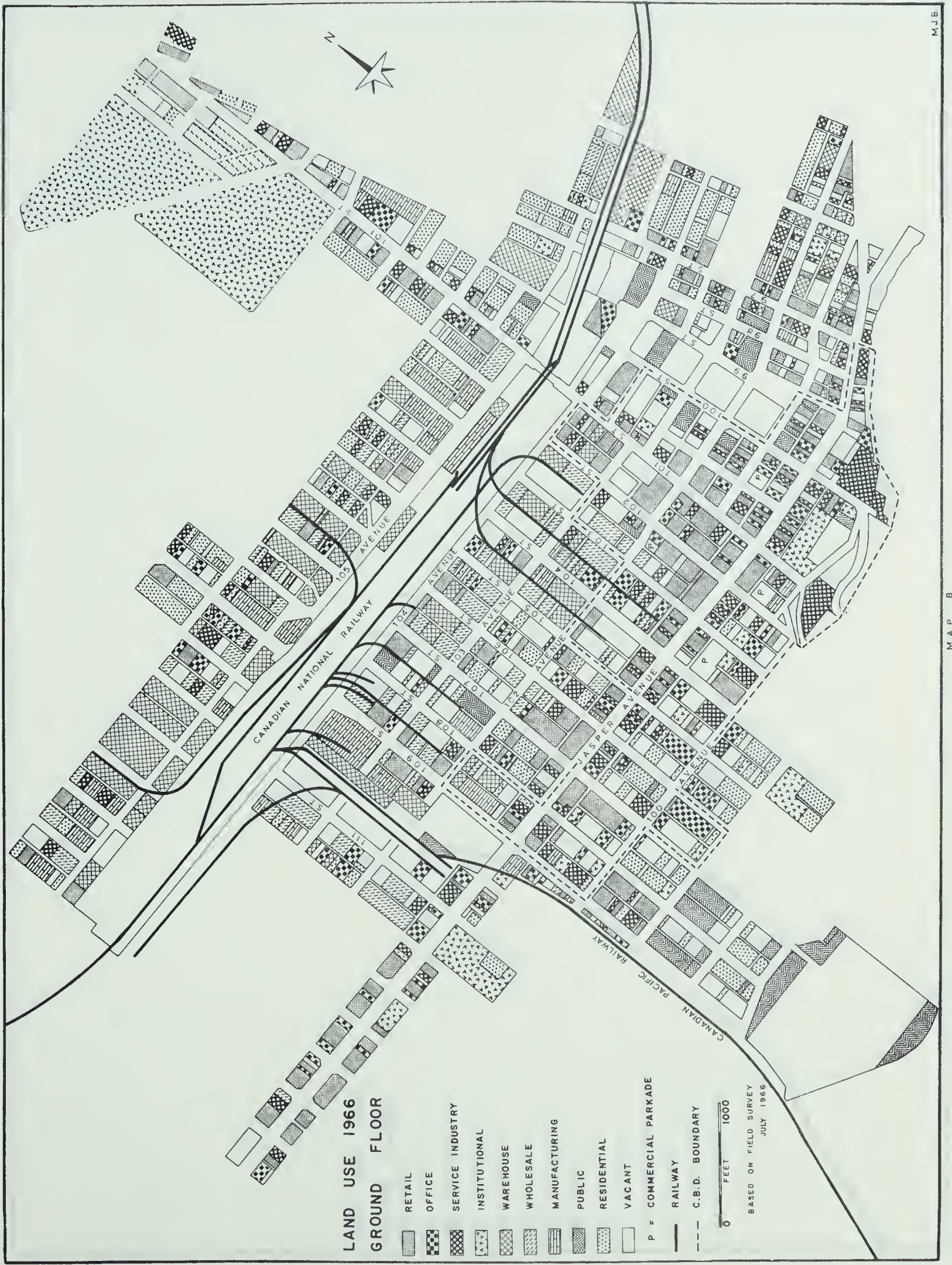
Source: Compiled from Maps 8, 9 and 10, and Fire Insurance Maps.

\*Area in square feet.





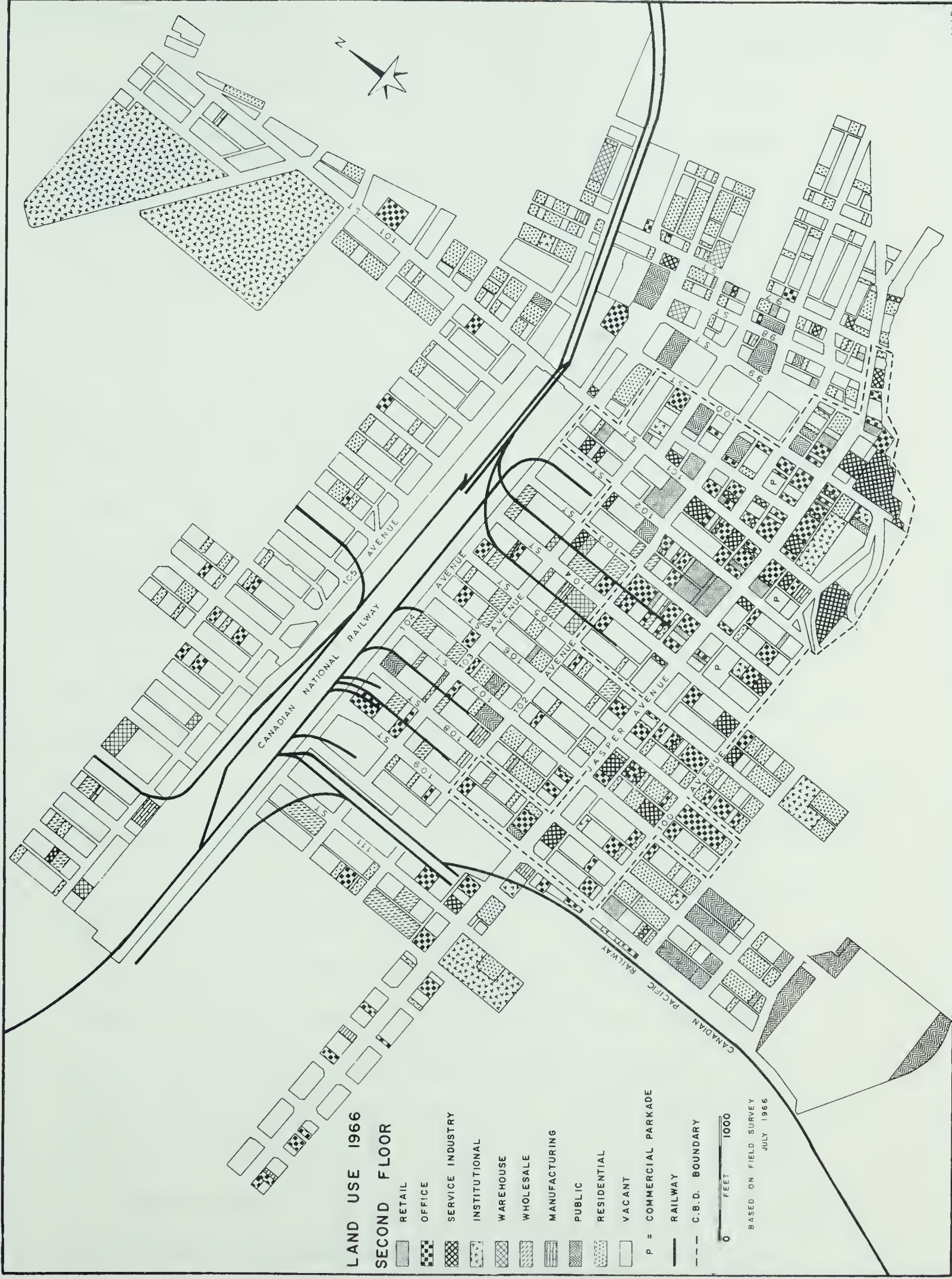
# THE CENTRAL AREA OF EDMONTON.







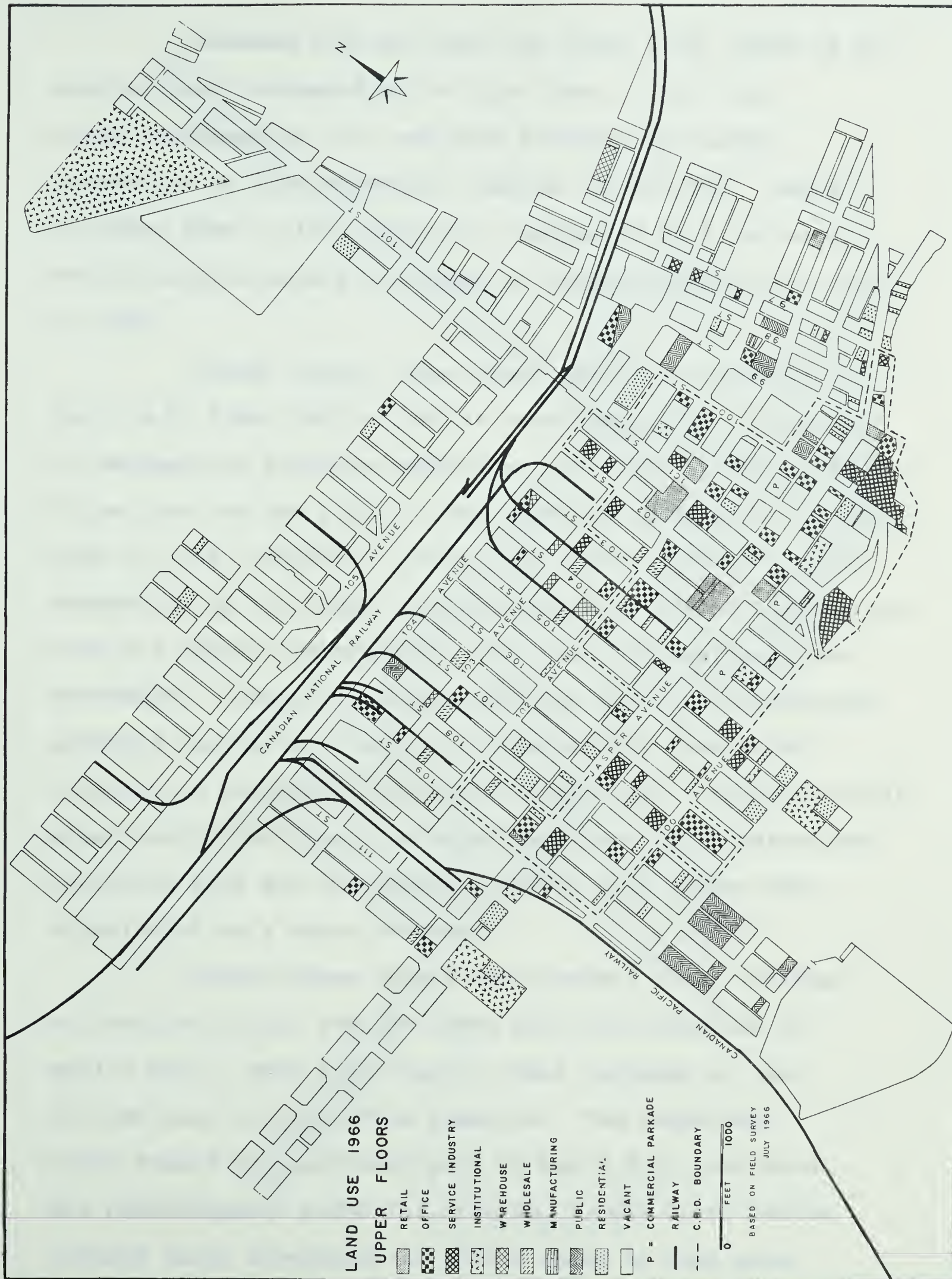
# THE CENTRAL AREA OF EDMONTON .







# THE CENTRAL AREA OF EDMONTON.



LAND USE 1966  
UPPER FLOORS

- RETAIL
- OFFICE
- SERVICE INDUSTRY
- INSTITUTIONAL
- WAREHOUSE
- WHOLESALE
- MANUFACTURING
- PUBLIC
- RESIDENTIAL
- VACANT

P = COMMERCIAL PARKADE  
— RAILWAY  
--- C.R.D. BOUNDARY

0 FEET 1000  
BASED ON FIELD SURVEY  
JULY 1966





Between 1960 and 1966 the total floor space of the central area increased by 26.4 per cent. The C.B.D. which increased by 29 per cent received the larger proportion of this expansion (Tables III and IV). Table II shows that in 1960 the C.B.D. contained 41.2 per cent of the central area floor space as compared to 40.5 per cent in 1960.

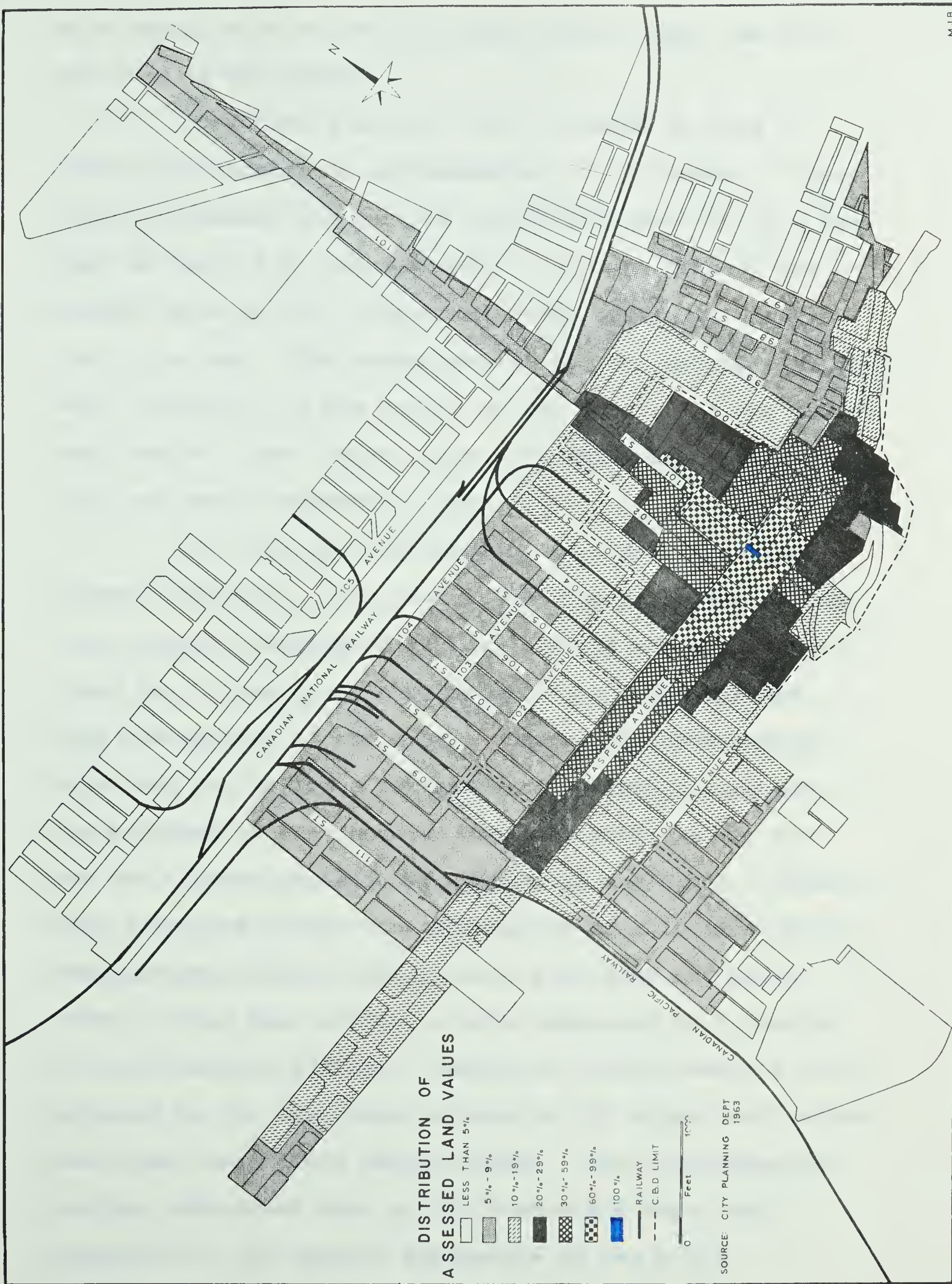
Though retail floor space actually increased in the C.B.D. from 1960 to 1966 it nevertheless was continuing to decrease in relative importance. By 1966 it occupied only 20 per cent of the C.B.D. floor space as compared to 31 per cent in 1946 (Figure 4). There was also a decrease in the proportion of the frame used for retail functions, indicating that its spatial importance in the whole central area was decreasing. Competition from outlying centres had severely affected the relative status of the central area retail function in relation to the rest of the city. In the central area itself, the growth of other functions far outstretched retailing uses and consequently retail uses became less significant as a space consumer.

Office space showed the greatest areal increase in both the C.B.D. and the frame with the exception of public uses. Both areas had an areal increase of over 110 per cent in the office function. The locational trend toward the southwest part of the C.B.D. continued but redevelopment plans for Area No. 7, the Civic Centre, induced large investment in office space in that area.





# THE CENTRAL AREA OF EDMONTON.







As a result much of the new prime office space was constructed in the frame.

New hotels in the C.B.D. created an area of first class transient accommodation on 100 Avenue. These hotels increased the service industrial space by 76.9 per cent in the C.B.D. Consequently, 74.8 per cent of the central area service industrial floor space was in the C.B.D. in 1966. The advantages of the 100 Avenue situation were, proximity to the centre of the C.B.D. and the government centre, lower rents, quiet surroundings, a pleasant view and easily assembled land.

By 1966 the distribution of C.B.D. uses had changed radically, even from 1960. The foresight of the City Planning Department in revitalizing the Civic Centre (Area No. 7) has given a balance to the functions and land use pattern of the C.B.D. Office and governmental functions now follow a northeast to southwest axis and are anchored to the Canadian National Tower at one end and the Alberta Legislative complex at the other. Government functions occupy the extremities of this axis while headquarters offices are on the C.B.D. edge and at the pivot of this axis stands an area dominated by financial and professional offices. Meanwhile retail uses are still anchored to the department stores on 101 Street and extend west from these along Jasper Avenue. The development of service industrial uses on 100 Avenue add depth and character to the general appearance of the C.B.D.



Though the warehouse function increased in area between 1960 and 1966 it continued to remain in Areas No. 4 and No. 9 together with wholesaling and manufacturing. As discussed above most of these uses found little locational advantage from central area premises and many would move if there were demand for their present space.

While public uses were expanding in the C.B.D., they were also continuing to occupy vacated stores in Area No. 4, the wholesale district. As a result of their continued expansion, public uses took on greater significance in the central area, occupying 10.5 per cent of the total floor space by 1966.

These data indicate that the C.B.D. was continuing to specialize in those types of retailing which cater to a city-wide market and which benefit from locations close to similar outlets. Map 11 shows that these developments had led to the existence of very high land values in all parts of the C.B.D. by 1961.

In the frame development was not as intensive and land values were not as high (Map 11) while the periphery of the frame had the lowest land values of any part of the central area.





## CHAPTER VII

### CONCLUSION

The central area is the pinnacle of a complex and varied commercial and administrative structure serving the whole city and a large tributary region. Most of the commercial activity focuses directly on the C.B.D. while the frame serves in large part to facilitate the more efficient operation of the C.B.D. At the same time, though, the frame is by no means entirely tributary to the C.B.D. but is itself the focal area for several important urban functions.

Since World War II the role of the central area in a fast growing city has changed rapidly. So too have the relationships of the C.B.D. and the frame. The centrality of the central area has led to intensive demand for space within much of the area and has consequently caused a large increase in land values. The result has been that large space consuming uses have been pushed further away from the present confines of the C.B.D. Automobile sales and furniture stores are good examples. During the 1950's and the early years of this decade land values in the C.B.D. were found to be too high and space too limited, so they moved to the frame. But today, many of these firms find that those parts of the frame to which they moved are now plagued by the same disadvantages as the present C.B.D. area had in 1950. Many are, therefore, prepared to move



out of the central area altogether.

Even more spectacular have been the changing patterns of retail trading which have resulted from changing consumer habits and the sheer growth of the city. These changes are reflected in the appearance of outlying shopping centres serving the suburbs with convenience and standardized mass produce. This by no means indicates the decline of central area retail functions; rather it indicates the increasingly specialized character of central area retailing as distinct from the rest of the city. While most types of convenience goods have moved out to peripheral locations, the C.B.D. has now become the focus of those retail stores with high rent paying ability, especially women's clothing, shoe, jewellery, menswear and millinery stores. These, together with department stores, are best able to afford high rents and "their well-being is the best index of central area health and prosperity".<sup>1</sup> Such stores serve the entire community and sell goods for which ease of comparison is an important shopper consideration. The variety of choice is of greatest importance for their goods, and the central area is their most advantageous habitat. This has set the central retail district in

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<sup>1</sup> Ratcliff, R. U., "The Madison Central Business Area", Wisconsin Commerce Papers, Vol. 1, 1953, page 44.





direct contrast to neighbourhood shopping centres, where convenience goods and goods needing little comparison are sold. Between 1946 and 1966 the total floor space devoted to retail uses in the C.B.D. declined by 5.2 per cent.

Table VI shows that this decline resulted from large space consuming uses vacating the C.B.D. while specialty and high quality goods stores increased numerically.

The forces that affected C.B.D. retail activity also influenced changes in the retail function in the frame, but to a much lesser extent. Since the frame is in close proximity to densely populated areas it serves large numbers of people with convenience goods in neighbourhood oriented outlets. "It also acts as a receiver for those blocks abandoned by high-quality Central Business functions."<sup>2</sup>

Among the service industries only the more exclusive clubs or restaurants have need of centrality and ease of accessibility to a city-wide clientele. But the central area has seen some numerical increase of many types of outlets taking advantage of shopping and business traffic. The principal expansion of central area service industry has occurred through the construction of hotel space. Much of this has been located southwest of the peak land value intersection, where advantage can be taken of lower

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<sup>2</sup> Preston, R. E. and Griffin, D., "A Restatement of the "Transition Zone" Concept", Annals, A. A. G., Vol. 56, 1966, page 348.



rents, a more pleasing environment, and close proximity to the centre of the C.B.D. and the provincial government complex. Since 1946 service industrial floor space has increased by 115 per cent in the C.B.D., in response to the development of these hotels.

But it is the role of central offices and quaternary functions which have been undergoing the greatest changes in both proportional and actual floor area. Prior to 1962, zoning regulations limited the height of buildings outside the central area and so prevented the dispersal of large offices. This, as well as the distinct advantages of central location, has helped develop a complex assortment of office uses in the central area, where they draw on a wide area for both business and employees.

Within the C.B.D. there are a great number of offices where occupants need to be close to one another for the exchange of ideas and the transfer of documents and money, and for the face-to-face contacts which are necessary in obtaining the background facts and surmises against which commitments are made or avoided. Typical of this group are the financial entrepreneurs who, in turn, demand close association with lawyers, publishers and advertisers as well as close proximity to the public. With increasing prosperity in both the city and the province space devoted to office uses in the central area has increased by 111.3 per cent since 1946. Most of this





expansion has been within the present confines of the C.B.D. where the advantages of centrality can be maximized and yet combined with some aesthetic appeal. The result has been a southwestward shift in location for many of the firms requiring office accommodation.

Different is the case of many other types of offices that derive less advantage from a central location and are more concerned with lower rents or more prestigious areas. Typical of these are the medical and headquarters office groups which find a location on the periphery of the C.B.D. or in the frame to be adequate for their purposes. These have no need of large amounts of passing traffic and are not involved in decision making which demands personal or face-to-face contacts with the professional groups.

As a result, office functions both in the C.B.D. and the frame have continued to grow but there has been a considerable segregation within the group. Those businesses that demand close proximity to a whole range of other professions can best be accommodated in the heart of the C.B.D. and they have continued to increase there. But those office functions which co-ordinate the affairs of smaller outlets over a wide area, or which cater to a special need of a section of the community, benefit from being close to the C.B.D., while being able to provide adequate parking and more aesthetic surroundings. These have chosen to reside in the frame or the edge of the C.B.D. and have greatly altered the character of these areas.



This study has shown that although manufacturing, warehouse and wholesale uses have all increased in the frame, it has continually decreasing advantages for many businesses because of high costs of land, inadequate space and difficulties caused by a high volume of both pedestrian and vehicular traffic. As a result, many firms have moved out of the central area and many that remain are uncertain about the future. The number of wholesale firms locating in the central area has decreased to a very small total as a result of comparative advantage in the outlying areas. Only wholesale firms without large amounts of stocks can find enough space within the central area today. In the case of warehousing uses there has been an increasing consumption of space in recent years. Most of this increase involves storage yards of C.B.D. or frame commercial enterprises which need a warehouse or storage yard close by. This warehouse development involves little investment and is of a temporary nature. Again, many of these firms would willingly vacate the central area, as many have done if alternative uses could be found to occupy their present premises.

The general appearance of those parts of the frame most dominated by manufacturing, wholesale and warehouse uses (Areas No. 4 and No. 9) has not improved over the years. They display evidence of a lack of adequate competition for space.

With increasing use of the automobile the area devoted to parking has increased in all parts of the centre.





All space in or near the C.B.D. which had no structure built upon it, was used for parking in 1966. The rise of commercial parkades has also increased the floor space devoted to this use.

Many of the changes which have been noted involved outward expansion of the central area at the expense of old residential structures. Consequently residential floor space in the C.B.D. has decreased by 78.8 per cent since 1946. The development of three high-rise luxury apartments in the frame, to take advantage of proximity to place of work and C.B.D. services, has reversed the declining areal trends of frame residential uses. As a result residential use is becoming, increasingly, a strong competition for space in the southern part of the frame.

In 1946, the present confines of the C.B.D. contained a variety of functions, many of which were unsuited to the C.B.D. Today 76 per cent of C.B.D. floor space is occupied by C.B.D. functions as compared to 65.5 per cent in 1946. Cost of land and lack of space for expansion has forced a segregation of activities. Those activities that could not afford or did not need a C.B.D. location have moved out of the central area altogether, or to the present frame. Consequently, the frame has become a receiving place for functions unsuited to the C.B.D. itself but which benefit from proximity to the C.B.D.

This segregation of activities has established



within the C.B.D. a number of nodes of C.B.D. activity, the nuclei of which were in existence in 1946. Retail uses have clung to Jasper Avenue and 101 Street while a financial district has evolved in Area No. 1. On its southern margin, the C.B.D. has become the location for a variety of professional and general offices and hotels, for which proximity to, rather than a location in the centre of the C.B.D. is most beneficial.

Within the frame functional nodes were in existence before 1946, but these have been greatly strengthened since then. The frame has become the home of a variety of large space using functions which cannot find, and do not need, space in the C.B.D. but for which proximity to the C.B.D. is of major importance. Here wholesale and manufacturing uses have become strongly established in Areas No. 4 and No. 9 while governmental uses dominate Areas No. 6 and No. 7. All of these uses benefit from proximity to the C.B.D. and both the wholesaling and manufacturing uses corridors here work toward the more efficient operation of the C.B.D. Areas No. 5 and 10 have become the favored location for those types of retail activity that cannot afford, and do not need, the high rents of the C.B.D. Here space is available for display rooms, for expansion and for parking.

For the future, recently announced plans indicate the continuing dominance of C.B.D. functions in the C.B.D.





and the increasing significance of governmental and headquarters offices in the frame.



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